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**An investigation of the implications of the decision to  
close the abalone fishery and the impacts on abalone  
rights holders in Kleinmond, South Africa.**

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## **Abstract**

The overall aim of this dissertation is to investigate the implications of the decision to close the abalone fishery and the impacts of this decision on abalone rights holders in the Kleinmond community in the Western Cape Province of South Africa. This dissertation also looked at the role that marine resources play in the livelihoods of fishers and the impact of the closure on the livelihoods of rights holders. Potential opportunities and constraints associated with alternative livelihoods options for fishers were also identified.

Data were collected by means of a literature review, focus group sessions, interviews, and questionnaires. Interviews were conducted with a wide range of stakeholders, including rights holders, officials from Marine and Coastal Management in Cape Town, key informants including local and provincial government authorities, representatives of community organisations, local business people, local fishery control officers (FCOs), and personnel from abalone processing factories.

The recent controversial decision by the Minister of Environmental Affairs and Tourism to close the abalone fishery was centralised, top-down and science based. Abalone rights holders were not consulted and played no role in the decision making process. With the announcement of the closure, the Minister announced the development and implementation of a Social Plan for fishers who were to be affected by the closure of the fishery. This Social Plan allegedly included the development of alternative livelihoods for fishers. However, no Social Plan has been forthcoming and no alternative livelihoods have been implemented in affected communities.

The closure of the fishery has resulted in numerous impacts on rights holders. Rights holders managed to improve their socio-economic standing by acquiring rights, the loss of which will impact on their current lifestyle. The lack of identification and implementation of suitable alternatives by government has further alienated rights holders who feel that government has “let them down”. Rights holders generally feel “hopeless” as they do not know where they will find money to pay debts or put food on the table.

This dissertation highlights the need to adopt an integrated and holistic approach to small-scale fisheries management. Resource management decisions in South Africa are still centralised and science based with very little concern for the socio-economic and cultural context of coastal communities. Participation by rights holders in management and decision-making has been lacking in the abalone fishery due in part to capacity constraints, but also to the lack of willingness on the part of fisheries scientists to engage with socio-economic and cultural issues relating to resource management. In light of the rhetoric regarding co-management and the laws and policies in support of this approach, the decision making process is considered to be flawed and inadequate.

The layout of this dissertation is as follows: Chapter 1 provides a background on resource management trends in the international and South African context, information about the abalone fishery in South Africa, and the methodology and limitations. Chapter 2 provides an overview of the theoretical and conceptual ideas underpinning the study and includes a review of the literature alternative livelihoods, the sustainable livelihoods framework and co-management. Chapter 3 provides a review of the legal and institutional framework relevant to small-scale fisheries and abalone in South Africa. Chapter 4 provides an overview of the abalone fishery in South Africa as well as the case study area, describing Kleinmond, the fishers and the resource. Chapter 5 presents the findings of the study. It looks at the decision-making process that led to the closure of the fishery, the impact of the closure on fishers and possible alternative livelihood options. Chapters 6 and 7 present the discussion of the findings and the conclusion.



## 1. Introduction

### 1.1 Background and rationale for the study

#### 1.1.1 Decline in fisheries resources

Worldwide, there has been a decline in marine resources as a result of ineffective management and overexploitation, and most fish stocks are classed as fully exploited (Myers and Worm 2003; Sunde 2003b; FAO 2004; Mahon *et al.* 2008). According to a 2002 report by the United Nations Food and Agricultural Organisation (FAO), fisheries around the world are in crisis (McGoodwin 1990; FAO 2002; World Bank 2004; Mahon *et al.* 2008). FAO (2002) estimated that 18 percent of the world's fish stocks are overexploited, whilst 10 percent have become significantly depleted. Resulting reductions in the biomass of target species and the degradation of ecosystems threatens livelihoods and undermines food security (Mahon *et al.* 2008). South Africa is no exception, and recent decades have seen a decline in marine resources to such an extent that many linefish species are commercially extinct and most marine stocks are fully exploited or over utilised (Branch and Clark 2006).

Benthic shellfish populations are under particularly heavy pressure due to the inherent characteristics of these resources<sup>1</sup> and the high value of the product (Defeo and Castilla 2005; Maharaj *et al.* 2007; Plagányi and Butterworth 2008). Abalone stocks worldwide are under pressure due to overfishing, disease, habitat loss and failed control of illegal catch (Maharaj *et al.* 2007). Abalone fisheries in California, Canada, Alaska and the Sultanate of Oman are or have all been closed at one point, whilst fisheries in Australia, New Zealand and Mexico are all under threat (Maharaj *et al.* 2007). Often described as “*one of the most difficult fisheries to manage*” (Hauck 2006), the South African abalone fishery, which is based on the species *Haliotis midae*, is under pressure due to poaching and the lucrative illegal trade, the movement of west coast rock lobster (WCRL) into abalone areas, and the ‘flawed’ rights allocation process (Daniels *et al.* 2006).

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<sup>1</sup> Sessile organisms which occur in shallow water

### 1.1.2 The shift towards holistic resource management

Resource management has historically been the responsibility of central government who have controlled fisheries activities in a largely centralised, exclusionary and top down manner (Hauck and Sweijd 1999; Hauck and Sowman 2001; van Sittert 2003; Raakjaer Nielsen *et al.* 2004; Branch and Clark 2006). Resources have largely been managed by fisheries biologists, with little attention paid to the local indigenous knowledge of traditional fishers (Raakjaer Nielsen *et al.* 2004; Pauly 2006; Hauck 2008). Fisheries management worldwide has struggled to find a balance between protecting resource sustainability, ensuring equitable access to resources and promoting economic efficiency and stability (Hauck and Kroese 2006). As a result, the goals of fisheries management have been largely 'biological' whilst social goals (e.g. employment, food security) have been neglected (Raakjaer Nielsen *et al.* 2004; Hauck 2008).

Conventional centralised regulation has failed in ensuring the long term sustainable use and management of a number of fisheries and has contributed to increased conflict between stakeholders (Hauck and Sweijd 1999; Raakjaer Nielsen *et al.* 2004; Beem 2007). Centralised and highly regulated approaches to fisheries management are now considered to be inappropriate, particularly in the developing world due to the down-scaling of government departments, limited financial resources, a lack of human capacity to manage resources over large areas, limited knowledge of local conditions and an increased demand from the public to be involved in decisions that affect their livelihoods (Hauck and Sowman 2003; Hara 2003). Thus issues of governance have become an important factor in resource management (Hauck and Sweijd 1999; Jentoft 2007). Governance should be interactive and multi-stakeholder driven, as opposed to the more traditional unitary, single minded, top down and instrumental systems (Jentoft 2007). The term "interactive governance" emphasises an integrated and communicative approach to fisheries and coastal management (Jentoft 2007). It is "*appreciative of contextual factors and local knowledge*" and the involvement of state, market and civil society is essential (Jentoft 2007). Systems to be governed are partly social and partly natural and therefore, in order to halt ecological degradation, the governing system or institutions must work with the social system, which includes resource users (Jentoft 2007).

In response to continuing resource degradation, overexploitation and conflicts among users there has been a shift away from centralised, top down, resource based approaches to one that is more holistic, systems-orientated and people centred (Hauck and Sowman 2003). Increasingly, there has been a transfer of responsibility away from the state to local communities: *“The philosophy changed from excluding people from their local resources to promoting shared management responsibility, encouraging community participation in the ownership, management and enforcement of sustainable resource utilization.”* (Hauck and Sweijd 1999). This people-centred approach is a result of an increased understanding and acceptance of the complex relationship between natural and socio-economic systems (Hauck and Sowman 2003). The increased role of social sciences in fisheries management has illustrated the importance of *“understanding broader social issues (such as social justice, livelihoods and food security) and linking disciplines to secure both resources and people”* (Hauck 2008). It is vital that we recognise and understand the link between social and ecological systems (Hauck 2008).

### **1.1.3 South African context**

In South Africa, coastal communities have utilised marine resources to sustain their livelihoods for centuries (Masifundise 2006). However, throughout the colonial and apartheid periods, marine resources were exploited mainly by large, white-owned companies - excluding traditional fishers (Sunde 2003; Masifundise 2006; Branch and Clark 2006). Although it was acknowledged that resources were reasonably well-managed during this time, the distribution of wealth and power was extremely uneven (Hersoug and Holm 2000). Further, management of marine resources was by top-down control (Branch and Clark 2006). South Africa's transition to democracy in 1994 resulted in the transformation of government institutions and a process of legislative reform to address the inequalities of the past (Hauck and Sowman 2003; Hauck and Nurse-Bray 2006; Witbooi 2006). Policies and legislation governing coastal and fisheries resources were introduced and these have included principles of *“equity, participation, social justice, stewardship, sustainability and accountability”* (Hauck and Sowman 2003; Branch and Clark 2006). Transformation in marine fisheries took place through the redistribution of access rights, internal transformation of established companies and the recognition of subsistence fishers (Branch and Clark

2006). The trend at a policy level has been to move away from top-down, centralised approaches to resource management toward a more cooperative and participative approach (Hauck and Sweijd 1999; Hauck and Sowman 2003).

The Reconstruction and Development Programme (RDP) which was published prior to the 1994 democratic elections, focused on poverty reduction, developing human resources, addressing past inequalities and injustices and emphasising equitable access to resources and participatory decision making (Masifundise 2006; van Sittert *et al.* 2006). The RDP created expectations amongst historically disadvantaged individuals (HDIs) in fishing communities that they would get rights to access marine resources as well as participate in the management of these resources (Masifundise 2006). However, the RDP was replaced by the GEAR (Growth, Employment, and Redistribution) programme in 1996. Under this programme the government embraced “*privatisation, subsidy removal, downsizing the public sector and encouragement of small black entrepreneurs*” (Masifundise 2006). Consequently, the focus on social policies (particularly within the fishing sector) decreased and in many respects the GEAR policy displaced some of the aspects of the RDP (Masifundise 2006; van Sittert *et al.* 2006). Van Sittert *et al.* (2006) state that the effect in terms of fisheries reform has been to “*sideline issues of poverty and food-security in pursuit of economic growth, efficiency and stability*”.

The Marine and Coastal Management (MCM) Chief Directorate within the National Department of Environmental Affairs and Tourism (DEAT), is the government authority primarily responsible for the management of marine resources and is the chief authority responsible for putting in place the provisions of the Marine Living Resources Act (MLRA). MCM is responsible for allocating and managing fishing rights, regulating recreational fishing, managing Marine Protected Areas, protecting and monitoring coastal and estuarine resources and is responsible for conducting research into and advising on the status of fish stocks (MCM-DEAT 2008).

The MLRA was promulgated in 1998, and it recognised subsistence fishers as a distinct group for the first time (Hauck and Kroese 2006). The goals of the MLRA are the sustainable utilisation of marine living resources, equitable access to marine resources and stability in the fishing industry. The mandate of the MLRA was that

marine resources should be used to contribute to the socio-economic needs of the people of South Africa. This created expectations in terms of increased access to resources and the improvement of socio-economic conditions for poor fishers (EEU 2008). This also created a huge challenge for MCM, in that they had to fulfil a new role of trying to achieve equity in access to marine resources and include as many new rights holders as possible; whilst at the same time ensuring sustainable harvesting of resources using minimum viable quotas. Despite this process of legal and policy reform, small scale fisheries are still managed in a top-down, centralised manner because South Africa's fisheries management authority was originally set up to deal with firms and large companies, which operated in a competitive business environment. The management authority thus had no experience or capacity to deal with the developmental and social issues that characterise small scale fisheries, as this was never included in their management framework. Thus South Africa's management authority still seems ill-equipped to deal with the relatively new challenge of small-scale fishers. Further, in terms of the new rights allocation process, *bona fide* traditional fishers have largely been denied legitimate access, even though they have a historical dependence on fishing (van Sittert *et al.* 2006).

Further, numerous constraints hamper the goals of the MLRA from being met and its provisions from being implemented successfully (EEU 2008). In some cases, the resource base has not been sufficient to cope with the increased demand and quotas were typically too small to be economically viable (Isaacs 2006; EEU 2008). Legislation and institutional arrangements have not been able to adequately administer the diverse fishing sector and the Draft Policies for the Allocation and Management of Medium-term Subsistence Fishing Rights and Small-scale Commercial Fishing Rights<sup>2</sup> have not been well received by coastal communities (EEU 2008). Further, complicated administration procedures and high costs have made applying for access rights difficult for poor coastal fishers (EEU 2008). Additional obstacles to fisheries management in South Africa include allegations of corruption of authorities which results in mistrust and skepticism and hinders the development of relationships between community members and government officials, the complexity of institutional arrangements, the limited power and status of DEAT who is charged with overall management, and the lack of human and institutional

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<sup>2</sup> Government Gazette No. 29391, General Notice 1679.

capacity amongst resource users and government (Hauck and Sweijid 1999; Hauck and Sowman 2003). These constraints, and others such as illegal harvesting and population pressure, have led to livelihood disruptions for many fishers, and thus provide a need to consider alternative livelihoods for coastal fishers.

Poverty and in-migration into coastal towns has further exacerbated the pressure on marine resources. There has been an influx of people into the fishing industry and due to what was considered a flawed rights allocation process, many *bona fide* fishers did not gain access to resources that they had traditionally harvested (Sowman 2006; Isaacs 2006). Consequently, the rights allocation process is not considered legitimate and many traditional fishers engage in harvesting marine resources without a legal right to do so.

The traditional approach to achieving compliance in fisheries, such as the abalone fishery, has been to increase policing efforts and to enforce rules that have been determined by the state. However, due to the costs involved in such enforcement efforts these initiatives are often short lived and consequently have little overall success in protecting marine resources. Increasingly, research is suggesting that the long-term protection and sustainable exploitation of natural resources does not require increased law enforcement or policing, but instead the management of human impacts through user participation and establishment of cooperative management structures (Hauck and Sweijid 1999; Hauck and Sowman 2003; Plagányi and Butterworth 2008). Research suggests that joint management (also referred to as co-management) will assist in the legitimization of management measures, rules and regulations since the assumption is that fishers are less likely to obey regulations that they perceive to be illegitimate (Jentoft 1989 in Hauck and Sweijid 1999; Raakjaer Nielsen *et al.* 2004). Similarly, participation increases ownership of the management system, thereby enhancing compliance (Masifundise 2007; Pedersen and Sunde 2007). Further, the decentralization of management activities can be cost-effective by reducing transaction costs (Pedersen and Sunde 2007). Pedersen and Sunde (2007) further state that participation in management may also contribute towards poverty alleviation. Jentoft (2006) argues that participation in management could lead to empowerment, if it is designed to stimulate learning, redistribute power and address equity issues.

These three aspects of empowerment are all closely linked to poverty alleviation and community development (Pedersen and Sunde 2007).

Small-scale fisheries play a crucial role in job provision and livelihoods in the developing world, thus contributing to poverty alleviation, food security and the development of local economies (Sowman and Cardoso 2008; FAO 2005; Béné 2006). It is widely recognised that small-scale fisheries can generate considerable profits and demonstrate resilience to shocks and crises (FAO 2005). Fishing therefore does not only contribute directly to food security through the supply of fish but also contributes indirectly through revenues created from production, processing and marketing activities (FAO 2005; Béné 2006).

According to Sowman and Cardoso (2008), South Africa does make legal provision for subsistence but government has not put in place adequate measures to allocate fishing rights and protect food security of these fishers. Furthermore, while fisheries can play a pivotal role in contributing towards increasing food security and alleviating poverty, research suggests that fisheries in Africa are becoming more and more export orientated with most benefits accruing to big companies, whilst small-scale producers are being marginalised (Sowman and Cardoso 2008; Béné 2006).

#### **1.1.4 The abalone fishery in South Africa**

Abalone has been harvested commercially in South Africa since 1949 and plays an important role in the livelihoods of many fishers. Regulation of the fishery started in the 1970s and the annual Total Allowable Catch (TAC) for the next 25 years was approximately 600 tonnes annually. However, the TAC for the 1996/1997 season was set at only 550 tonnes, and since then the TAC has been steadily decreasing. Reasons for the decreasing TAC are twofold. Over the years, illegal harvesting or poaching of the resource has become an increasing problem because of the increase in demand for abalone and the accompanying financial incentive. In addition, environmental changes have resulted in the movement of west coast rock lobster into abalone areas and this affected abalone survival rates (DEAT 2006; Maharaj *et al.* 2006). Consequently, due to concerns about the state of the resource, the Total Allowable Catch (TAC) for the fishery has been declining.

In 2003, the Policy for the Allocation of Commercial Fishing Rights in the Abalone Fishery (Abalone Policy) allocated long term rights to abalone divers in the hope that it would instil a sense of ownership over the resource and facilitate collaborative management of the resource. A TURF (Territorial User-Rights Fishery) based system was introduced, but has had little success. Small-scale commercial allocations, ranging from 150-600 kilograms were allocated to 302 persons or legal entities for a period of 10 years. Compliance in the fishery has been difficult. Apart from what is perceived by many fishers to have been a flawed rights allocation process, the common property nature of the resource, the ease with which the abalone can be harvested and the vast coastline that needs to be patrolled has made enforcement efforts costly and difficult to maintain.

MCM has effectively transformed the abalone fishery from an industrial fishery controlled by five large white owned companies into a true small scale fishery, which redistributed rights and allocated small quotas directly to previously disadvantaged entrants (Hauck 2006). However, following this transition, a number of things “went wrong” in terms of management decision making which has resulted in the current closure situation. This thesis presents a “post mortem” of what went wrong in terms of management and decision making relating to the abalone fishery.

A recent controversial decision by the Minister of Environmental Affairs and Tourism in October 2007 has seen the indefinite suspension of commercial abalone harvesting in South Africa. Due to the scale of poaching and the estimated impact of this on the resource in terms of long term sustainable resource utilisation, an emergency<sup>3</sup> was declared in the fishery.

With the announcement of the closure, the Minister also announced the development and implementation of a Social Plan for fishers who were to be affected by the closure of the fishery. This Social Plan allegedly included the development of alternative livelihoods for fishers, such as boat-based whale watching and shark cage diving. However, no Social Plan has been forthcoming and no alternative livelihoods have been implemented in affected communities. It appears that little research went into

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<sup>3</sup> Marine Living Resource Act, Section 16, Emergency Measures.



investigating the feasibility of the alternatives proposed or the suitability in terms of the assets of fishers.

Abalone harvesting makes an important contribution to the livelihoods of many fishers in South Africa and small-scale fisheries in general play a vital role in food security in coastal communities (Cardoso *et al.* 2006). The Abalone Fishery Report (2006) indicates that the average abalone diver earns between R60 000 and R105 000 per year (Hauck 2006). It is estimated that between 700 and 800 people were employed in the abalone industry at the time of its closure. This dissertation focuses specifically on the impact of the closure of the abalone fishery on rights holders in the coastal community of Kleinmond. Prior to the closure there were 15 individual rights holders and 3 entities with rights to harvest abalone. Consequently fishers have been left without an income and with few economic or livelihood alternatives. Further, fishers do not usually possess the skills or capital needed to become involved in another occupation; fishing is all that they know. Fishing also has strong cultural links for many traditional fishers, and often their fathers and grandfathers were also involved in fishing activities (Cockroft *et al.* 2002).

In order to decrease the pressure and reliance on marine resources in coastal communities, the development of alternative livelihoods for fishers needs to be a priority. Studies, such as those conducted by the Environmental Evaluation Unit (EEU 2008) and Glavovic *et al.* (2002) on sustainable livelihoods, as well as programs such as Coast Care and Poverty Relief funded projects (DEAT 2002) indicate that this is becoming a priority. However, there seems to be little follow up on the progress and success of these initiatives. Alternatives need to be tailored to the needs of the community as well as to focus on available assets. This requires an understanding of livelihoods and the assets and constraints inherent in livelihood strategies. The Sustainable Livelihoods Framework is a tool that aids the analysis of livelihoods and allows thinking about livelihoods that orders the complexity of the various factors (Allison and Ellis 2001). The Sustainable Livelihoods Framework is discussed in more detail in Section 2.2.

This dissertation will also explore the decision making process that led to the ban of abalone harvesting; the impact of the ban on rights holders, as well as possible

alternative livelihood opportunities that could be pursued by the group of fishers. The focus of this study was to determine the impact and implications of the closure of the fishery on abalone rights holders in the Kleinmond community.

## **1.2 Aim and Objectives of Research**

The overall aim of this dissertation is to investigate the implications of the decision to close the abalone fishery and the impacts of the closure on the abalone rights holders in the Kleinmond community in the Western Cape Province of South Africa.

Specific objectives include:

1. To review the literature relevant to sustainable coastal livelihoods, co-management and fisheries management in South Africa and abalone harvesting in particular;
2. To examine the policy and legislative framework relevant to managing small-scale fisheries, including abalone, in South Africa;
3. To identify the range of stakeholders that have been affected by the abalone ban;
4. To document and discuss the decision-making process associated with the closure of the abalone fishery;
5. To determine the extent to which the ban on abalone has impacted on the livelihoods of individuals and the Kleinmond community in general;
6. To determine the role that marine resources, specifically abalone, play in the livelihood strategies of fishers in Kleinmond; and
7. To identify possible alternative livelihood opportunities available in Kleinmond, what alternatives fishers would be willing to consider, and what the constraints and opportunities associated with these might be.

## **1.3 Methodology**

Information to address these objectives was largely obtained from a review of relevant literature, including: international and local publications, reports, grey literature, court documents, press statements as well as Internet sources. Data was collected in

Kleinmond by means of focus groups with fishers, one on one key informant interviews and questionnaire surveys with fishers. Interviews were also conducted with MCM officials, local business people, local and provincial government officials and other persons who had insight into the abalone industry and the decision to close it. Data was mostly qualitative and the best objective interpretation of that data was made.

Research for this dissertation was conducted in Kleinmond, which provided a good opportunity to understand issues surrounding the closure of the fishery. Given that Hauck (Hauck and Nurse-Bray 2002; Hauck and Hector 2003) had previously conducted research in the area for several years and was linked to this research project, access to the community by the author was easily facilitated as trust had already been fostered during past research interactions.

Furthermore, this study formed part of a larger project funded by the National Environmental Advisory Forum (NEAF), which conducted research on sustainable coastal livelihoods for fishers in three coastal communities, namely Doringbaai, Mbotyi and Kleinmond. The key focus of this research project was to investigate the feasibility and desirability of developing alternative coastal livelihoods in poor coastal communities in South Africa. At a preliminary workshop held on 13 February 2008 with the research team and officials from Marine and Coastal Management's Sustainable Coastal Livelihoods sub directorate, 4 key research themes were identified for investigation. These themes have been used to guide this research process (See Appendix 9.1): (1) Resources and resource users; (2) Current livelihood strategies; (3) Potential livelihood options; and (4) Mechanisms to explore future livelihood opportunities.

### ***Literature Review***

A review of the literature dealing with fisheries management, co-management, small-scale fisheries, alternative livelihoods, and the sustainable livelihoods framework (SLF) as well as the relevant laws and policies relating to the management of the abalone resource was conducted. This review provided the background for this study as well as allowing for a broad and holistic approach to understanding the livelihoods

of fishers. The review also assisted in the development of the questionnaire. Whilst the SLF was not used as a tool of analysis, it did assist in the understanding of the various factors that influence livelihoods.

### ***Field Visits: Scoping Exercise, Focus Group Meetings and Key Informant Interviews***

Four fieldtrips to the study area were undertaken over the period 13 March through to 06 June 2008. The first field trip was a scoping exercise to meet with key informants and community representatives from Kleinmond and to inform them of the intended research.

The second field trip consisted of focus group meetings as well as interviews with the local municipality, key informants, NGOs working in Kleinmond and informal interviews with fishers at the Harbour. Two Focus Group Meetings were held (one for abalone and another for WCRL) which involved small gatherings of fishers and was organised through a community representative. The Abalone Focus Group was attended by approximately 10 fishers and lasted an hour and a half. The WCRL Focus Group was attended by about 60 people, and lasted three hours. This method allows large amounts of information to be collected in a relatively short period of time whilst at the same time allowing for debate and discussion amongst fishers.

During the third and fourth field trips additional key informant interviews were held and a questionnaire survey was administered amongst 10 fishers. For the purposes of this dissertation, emphasis was placed on those fishers who were historically involved in fishing activities and who access abalone and WCRL resources legally through a system of rights and permits, thus the reference to 'rights holders'.

### ***Questionnaire Survey and Interviews***

The questionnaire survey consisted of a structured questionnaire that sought to gather both quantitative and qualitative information specifically from resource users (See Appendix 9.2). Fishers were contacted and a time and place was determined to meet for the interview, usually at a coffee shop near the Kleinmond Harbour. The focus of

the survey was on gathering household socio-economic data, livelihood approaches, as well as perceptions pertaining to the closure of the abalone fishery.

Interviews were also conducted with selected MCM officials in the directorates involved in aspects of abalone management at their offices in Cape Town. Questions were tailored depending on the role of the person in the organisation. Interviews were conducted with officials from the following Chief Directorates: Research, Antarctica and Islands (4), Marine and Coastal Resource Management (2), Monitoring, Control and Surveillance (2) as well as Integrated Coastal Management (2). In total, 10 MCM officials were interviewed. Further, three UCT scientists were also interviewed.

Interviews were also conducted with key informants including local and provincial government authorities, representatives of community organisations, business people, local fishery control officers (FCOs), and personnel from abalone processing factories. These interviews provided a better understanding of social and economic issues in the community as well as institutional arrangements, livelihood options available and the key opportunities and obstacles to income or livelihood diversification.

For a comprehensive list of people that were interviewed for this dissertation, refer to Appendix 9.3.

All data were gathered by the author and initial fieldtrips were conducted in collaboration with a PhD student based at the Environmental Evaluation Unit (EEU), University of Cape Town (UCT). Data collected were mainly qualitative and this thesis represents the best objective interpretation of the information provided by fishers and other informants.

Interviewees were assured anonymity and thus only their title or role will be provided in parentheses, for instance: (Research Official). This facilitated more open and honest discussions, as interviewees were less concerned about any repercussions that may result from expressing their opinions. Further, the aim of this study was not to locate fault, but to understand the issues and impacts surrounding the closure.

## 1.4 Limitations

Research for this study commenced soon after the fishery had been closed. Initial discussions with rights holders, revealed that many were hopeful that the fishery would be reopened and had consequently not given much thought to alternative livelihood opportunities. However, on returning to Kleinmond a few weeks after the announcement of the closure, it was clear that rights holders had been considering alternative economic opportunities. This could have been as a result of the initial visit (which had encouraged rights holders to start thinking about alternatives), or because meetings between MCM and rights holders revealed the lack of a Social Plan to address alternative livelihood options.

It is possible that certain rights holders may have been investigating alternatives, yet seemed reluctant to offer these alternatives for fear that MCM would close the fishery permanently and concentrate on the alternatives which the fishers themselves suggested. Further, they were concerned that if these ventures did not prove successful, that they (and not MCM) would be held responsible. On returning to Kleinmond for a second visit, some fishers were more forthcoming regarding economic ventures they were involved in or opportunities they had been investigating.

Time is a huge factor in building a relationship of trust with the fishers, and although there was an existing relationship with colleagues in the EEU, time was needed to build a trusting relationship between the author and the fishers. In Kleinmond, this is a particularly important limitation due to the contentious nature of the resource, as well as a history of mistrust and empty promises. There is also deep-rooted conflict and tension in the community due to competition regarding access to resources and the permit allocation system which has resulted in tension between those who received allocations, and those who did not (Hauck and Hector 2003).

Although the study aimed to target both the boat owners and their crew, in general crew members were difficult to track down as they were usually at sea, acting as crew on other boats, catching fish or doing informal work as builders or gardeners. As a result, mainly boat owners or rights holders were interviewed. In order to gain a better understanding of the perceptions of crew, rights holders were asked questions pertaining to their regular crew members.

Further, a number of challenges presented themselves during the data collection process. Firstly, many respondents used the interview and focus group sessions as an opportunity to advance their own agendas. Thus some questions were not answered in full or the answer did not pertain to the question asked. Secondly, the timeframe for research was short and thus there was little flexibility in terms of the research schedule – thus opportunities for interviews were lost when fishers had to go to sea. Third, due to the sensitivity surrounding the closure of the abalone fishery one needed to be cautious not to raise expectations as often researchers are perceived to be bringing opportunities. And lastly, scepticism and lack of trust towards MCM resulted in fishers being reluctant to answer certain questions, particularly those related to their income; current livelihood activities as well as potential future opportunities. Fishers were wary of answering these questions because they believed that MCM would use the information “against them”.

## **1.5 Structure of the dissertation**

The dissertation is structured as follows:

**Chapter 2** provides an overview of the theoretical and conceptual ideas underpinning the study and includes a review of the literature on poverty and food security, alternative livelihoods, the sustainable livelihoods framework and co-management.

**Chapter 3** provides a review of the legal and institutional framework relevant to small-scale fisheries and abalone in South Africa.

**Chapter 4** provides an overview of the abalone fishery in South Africa as well as the case study area, describing Kleinmond, the fishers and the resource.

**Chapter 5** presents the findings of the study. It looks at the decision-making process that led to the closure of the fishery, the impact of the closure on fishers and possible alternative livelihood options.

**Chapter 6** discusses the findings of the study.

**Chapter 7** presents the recommendations and conclusion.

## **2. Theoretical and conceptual ideas underpinning the study**

### **2.1 Alternative Livelihoods**

Cheung and Sumaila (2007) state that it is essential to develop alternative livelihoods for fishers who are affected by fisheries management and conservation policies, to facilitate the shift toward sustainable fishing. Further, the reduction of fishing effort without proper training to help fishers find alternative livelihoods may create significant social problems (Cheung and Sumaila 2007).

However, strategies and initiatives to promote alternative livelihoods are often difficult to implement, particularly among fishers. This is because fishing fulfills non-economic satisfactions that make fishers reluctant to leave the industry, even if catches and income decline (Cinner and Pollnac 2004). Therefore, to succeed, alternative livelihood or income strategies should fulfill some of the same job satisfactions as fishing (Cinner and Pollnac 2004). Pomeroy *et al.* (2006) similarly state that alternative livelihoods for fishers should have some of the same characteristics that are considered desirable in fishing such as being self employed or just the pleasure of being at sea. In addition, fishers show an interest in activities that do not remove them entirely from the fishery and that utilise their current skills-set.

Alternative income generation should be tailored to the understandings and needs of specific segments of the community, as this will maximise the benefits of social changes and promote sustainable resource use (Cinner and Pollnac 2004). It is vital to be aware of the constraints faced in other countries when trying to implement alternative livelihood options in coastal communities. Conventional interventions in the fisheries sector have focused on the introduction of new technologies, provision of credit, fish stock enhancement programmes and strengthening of government monitoring and enforcement (Allison and Horemans 2006). Instead, interventions identified through the sustainable livelihoods approach, are usually targeted at overcoming institutional barriers to the effective development of existing technologies, financial service provision and marketing arrangements (Allison and Horemans 2006). The emphasis is more on creating the conditions that allow resource



users to become involved in fisheries management and tend to address the social needs of fishing communities (Allison and Horemans 2006).

One of the most frequently proposed alternative activities for coastal communities is aquaculture. However, aquaculture initiatives are not without problems and should not be seen as a blanket solution to resource overexploitation in fisheries. For example, the introduction of aquaculture in Central Vietnam as a livelihood opportunity had negative repercussions that left farmers in debt and polluted natural resources (Van Hue and Scott 2007). Those with management skills, capital and the right political connections, gained priority access to resources. However, the 'better-off' farmers who invested more ended up most indebted. In addition, crises such as disease outbreaks have devastated aquaculture initiatives and these are exacerbated by low levels of education and lack of experience amongst fishers as well as poor technical support and lack of access to capital (Van Hue and Scott 2007). A range of socio-economic problems are associated with the development of aquaculture e.g. equity issues relating to distribution of benefits, conversion of common property to private property, land-use conflicts, and the production of an export food instead of food for the poor (Defeo and Castilla 2005; Van Hue and Scott 2007). Van Hue and Scott (2007) stress the importance of attention to local contexts and histories when considering alternative livelihoods as this can contribute to a more thorough understanding of the cause and consequences of environment-poverty interfaces.

Another problem associated with the introduction of alternative livelihoods, or coastal development in general, is that successful ventures tend to attract outsiders (Raakjaer Nielsen *et al.* 2004; Sievanen *et al.* 2005). Unless alternative livelihood projects are coupled with controls to prevent increased fishing effort and new entrants, and a change from fish as the main protein source, fishing is unlikely to decrease (Sievanen *et al.* 2005).

The promotion of alternative livelihoods is often based on a number of assumptions regarding fishing and fishing communities. Firstly, it is assumed that small-scale fishers are poor and that this is linked to resource overexploitation. Secondly, it is assumed that fishers are willing to stop fishing and engage in more lucrative opportunities and it is assumed that engagement in more lucrative opportunities will

reduce pressure on the resources (Sievanen *et al.* 2005). However, recent research has shown that these assumptions may be incorrect (Sievanen *et al.* 2005). For example, Sievanen *et al.* (2005) found from a review of literature and empirical research that researchers are now questioning whether fishers are in fact amongst the poorest of the poor. Furthermore, there are questions regarding the direct link between poverty and overexploitation and that job satisfaction results in a resistance to change to alternative occupations (Sievanen *et al.* 2005).

Examples of international and regional interventions to identify and develop alternative livelihoods include the Sustainable Fisheries Livelihood Programme (SFLP) based in West Africa, and the Integrated Coastal Resource Management Project (ICRMP) based in the Philippines. The SFLP achieves its objectives by providing three types of support: institutional capacity and policy development; small-scale poverty-focused community projects; and pilot-projects that address regional issues related to livelihood security (Allison and Horemans 2006). However, interventions such as the SFLP are targeted at overcoming the institutional barriers and creating conditions that facilitate the involvement of resource users in monitoring, surveillance and enforcement of fisheries management (Allison and Horemans 2006). Interventions should not focus only on fishery management related activities, but should also be involved in social issues such as HIV/ AIDS prevalence or gender inequalities (Allison and Horemans 2006).

The Integrated Coastal Resource Management Project (ICRMP) was initiated in 2005 and will run until 2009. It is supported by the Asian Development Bank loan and a Global Environmental Faculty (GEF) grant and implemented by the Department of Environment and Natural Resources (DENR). The aim is to improve the state of coastal and marine resources, thereby reducing poverty. The project will strengthen institutional development and coordination between agencies, as well as help to develop a national CRM policy. Enterprise development and poverty reduction interventions will aim to develop sustainable enterprises and livelihoods for local communities. Further, infrastructure and social services will be provided, to improve the quality of life for coastal residents and facilitate ICM (White *et al.* 2005). Both these projects recognise the importance of institutional arrangements as an issue that needs to be addressed if the interventions are to be successful.

As is clear from the above, a review of the literature has highlighted a number of constraints with regards to the implementation of alternative livelihood options. Pomeroy *et al.* (2006) list four key criteria for assessing livelihood options that could play a role in facilitating their success:

- (i) Social feasibility i.e. livelihood options need to be well-suited to “*the needs and aspirations, existing work ethic and livelihood strategies, organization, economic and social structure, gender differences, and culture of the affected community and households.*” Because households are not homogenous, and preferences differ, a variety of options need to be made available. Livelihoods that evolve in response to local skills and available resources are more likely to be sustainable;
- (ii) Technical feasibility i.e. livelihoods are preferable if they require low levels of capitalization, are low risk and are at a level that can be managed by the people;
- (iii) Institutional sustainability i.e. livelihoods must be sustainable even after external organizations (with funding and resources) phase out. Decision-making must be participatory and people must be provided with the skills and ability to adapt to change;
- (iv) Supporting infrastructure and policy environment i.e. the sustainability of a livelihood option “*will depend on the availability of supporting infrastructure and the enabling environment, including credit, inputs, markets and technical assistance.*”

Although the concept of alternative livelihoods is being promoted in various countries through numerous projects, there is still a pressing need to reduce the absolute pressure on resources (White *et al.* 2005). Alternative livelihoods, whilst necessary, do not employ people to the extent required to reduce absolute dependence on coastal resources. Research by White *et al.* (2005) found that as people migrate to the coast, there are an increasing number of people dependent on fisheries for food and livelihoods. White *et al.* (2005) recommend that the need to balance human population growth with resource use and management should be incorporated into Integrated Coastal Management (ICM) and development projects.

Subsistence fisheries in South Africa are characterised by poverty, a large number of users and easy access to resources (van Sittert *et al.* 2006). Co-management and the development of alternative livelihoods are crucial to fulfill the need for co-operation from fishers and to alleviate pressure on resources (van Sittert *et al.* 2006). *“Failure to generate alternative livelihoods and create employment will heighten poverty, intensify reliance on natural resources and increase illegal catches until stocks collapse.”*(van Sittert *et al.* 2006). In addition, small-scale fisheries are often neglected in rural development or poverty alleviation initiatives (FAO 2005). This is because fishers are often seen to be ‘employed’ as they already have a means of livelihood (pers. comm. Sowman 2008).

In situations where people with historic involvement in small-scale fisheries are excluded from accessing marine resources, this cannot be done without first identifying and developing viable alternative livelihood opportunities for them. It is government’s responsibility to explore other livelihood opportunities with such communities (Sowman and Cardoso 2008). Further, exploring alternatives an inter-sectoral approach is needed, taking into account that fishers often use a range of livelihood strategies (Sowman and Cardoso). There are a number of national policies that may be of relevance to identifying alternative livelihoods. These include poverty alleviation, decentralization, finance and credit, migration, health and education (FAO 2005). Furthermore, the SADC Protocol on Fisheries holds the State responsible to seek alternative economic opportunities for persons in cases where their activities threaten the survival of a species.

In 1999, Hauck and Sweijd predicted that there would be severe economic repercussions should the abalone resource collapse, resulting in a need to seek alternative forms of income. Not only would rights holders be affected; but also those who indirectly depend on the fishery for their livelihood (Hauck and Sweijd 1999). It would appear that limited research and feasibility studies were undertaken on appropriate livelihood opportunities for those dependent on small-scale fisheries resources such as abalone.

## **2.2 The Sustainable Livelihoods Framework**

The Sustainable Livelihoods Framework (SLF) (see Figure 1) was developed as a tool to help gain a better understanding and aid analysis of the livelihoods of the poor, and to allow thinking about livelihoods that orders the complexity of the various factors (DFID 1999; Allison and Ellis 2001). The Sustainable Livelihoods Approach is not only a research or conceptual framework, but can also be used to design and implement policies that seek to improve livelihoods and reduce poverty (Allison and Horemans 2006). If management or other forms of intervention are based on an incomplete understanding of livelihoods, it can result in recommendations that are incompatible with resource conservation as well as the social and economic goals of management (Allison and Ellis 2001). A key aim of the SLF is to avoid preoccupation with a particular component of a livelihood strategy, and to ensure a holistic approach in which other components, that make demands on the resources of the household, are considered (Allison and Ellis 2001).

The Framework organises the various factors that influence people's livelihoods and the relationships between them, as well as trying to determine how people convert assets into livelihood outcomes (DFID 1999; Allison and Horemans 2006; Isaacs 2006). The Framework seeks to understand the factors that influence a particular choice of livelihood strategy (DFID 1999), but also recognises multiple strategies, actors and livelihood outcomes (Isaacs 2006). The unit of analysis is typically the household (Allison and Horemans 2006).

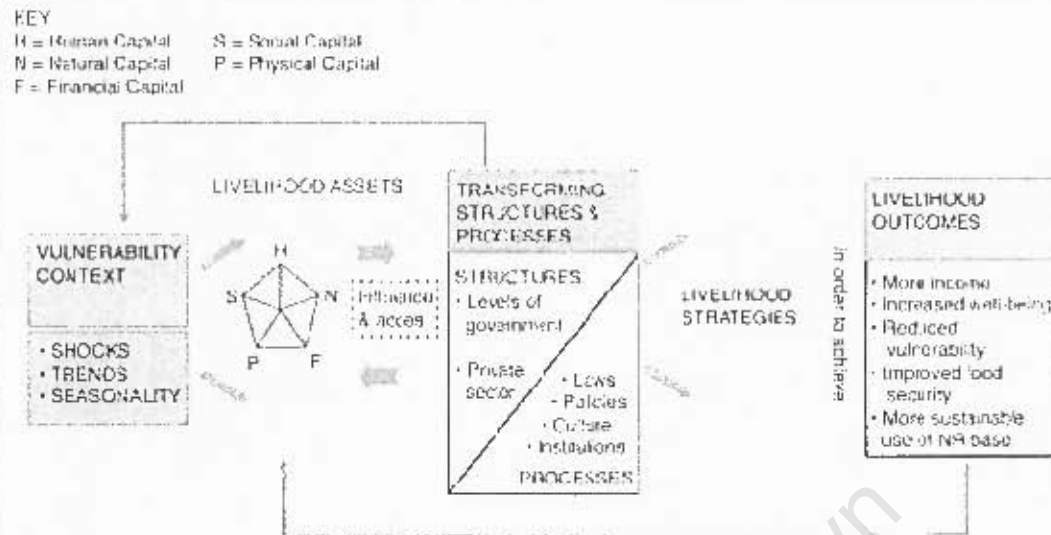


Figure 1: The Sustainable Livelihoods Framework (adapted from Isaacs 2006)

A livelihood is made up of the assets and the activities, and the access to these, that collectively determine the living achieved by the individual or household (Allison and Ellis 2001). Livelihoods are sustainable when they are resilient to shocks and stresses, are not reliant on external support, maintain the long term productivity of natural resources and do not undermine or compromise the livelihoods of others (DFID 1999; Isaacs 2006; Allison and Horemans 2006). The sustainable use of the resource is a prerequisite for sustainable livelihoods in coastal communities (Isaacs 2006).

The Framework views people as operating in a context of vulnerability, within which they have access to certain assets or poverty reducing factors (DFID 1999). The 'vulnerability context' refers to external factors which are beyond the household's control that can affect livelihood sustainability, such as shocks<sup>4</sup>, trends<sup>5</sup> and seasonal shifts, which can destroy or create assets (DFID 1999; Allison and Ellis 2001; Allison and Horemans 2006). Poor people's livelihoods are innately fragile, which makes it difficult for them to cope with stresses or to reduce those stresses, and as a result they become increasingly more vulnerable (DFID 1999). Past management practices to curb resource depletion have been top down and consequently not responsive to trends and shocks, as they lack adaptability (Allison and Ellis 2001).

<sup>4</sup> E.g. storm damage, toxic algal blooms or fuel price increases (Allison and Horemans 2006).

<sup>5</sup> E.g. decreasing catch rates, increasing prices for fish or the rising costs of food (Allison and Horemans 2006).

To ensure that interventions reach the poor in a particular community, and build the necessary resilience, it is essential to understand the underlying causes of poverty and vulnerability (Allison and Horemans 2006; Pomeroy *et al.* 2006). Underlying causes of poverty can include: *“social and economic power imbalances, lack of participation in decision-making, limited asset ownership, resource dependence, and laws and regulations that influence people’s ability to use assets”* (Pomeroy *et al.* 2006). Building resilience means *“reducing reliance upon natural resources for livelihoods, strengthening community institutions, organizations and infrastructure, and diversifying livelihoods”* (Pomeroy *et al.* 2006). Research suggests that laws and policies are not encouraging the building of resilience, in fact they are resulting in the opposite (Pomeroy *et al.* 2006)

Further, we need to understand how people sustain their livelihoods (or not) despite shocks and trends, as this will help design policies that are based on existing coping strategies and that can enhance their effectiveness (Allison and Horemans 2006). Policies or interventions can include improving access to education, reforming local tax systems, providing financial services or promoting livelihood diversification (Allison and Horemans 2006).

Livelihood or capital assets or the ‘asset pentagon’, lies at the core of the framework, within the vulnerability context, and consist of the natural<sup>6</sup>, human<sup>7</sup>, social<sup>8</sup>, financial<sup>9</sup> and physical<sup>10</sup> capital that that is owned, controlled or somehow accessed by the household (DFID 1999; Allison and Ellis 2001; Allison and Horemans 2006). These assets gain their value through the social, institutional, policy and organizational environment in which they operate (i.e. ‘policies institutions and processes’<sup>11</sup>) (DFID 1999; Allison and Horemans 2006):

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<sup>6</sup> E.g. Fish stocks, areas accessed by license, land owned (Allison and Horemans 2006).

<sup>7</sup> E.g. People’s capabilities in terms of their knowledge, skills, health and education (Allison and Horemans 2006).

<sup>8</sup> E.g. Organizations, networks and associations that people can use during times of difficulty (Allison and Horemans 2006).

<sup>9</sup> E.g. Savings, credit, insurance (Allison and Horemans 2006).

<sup>10</sup> E.g. Boat and house (at the household level); infrastructure and schools (community level) (Allison and Horemans 2006).

<sup>11</sup> Includes the role of state regulations, community based rules and social relations (Allison and Ellis 2001).

*"It is policies and institutions that determine access to assets, set the vulnerability context and determine peoples' livelihood options, reactions and strategies, and ultimately, the outcomes of those strategies in terms of their ability to make a living and willingness to invest in helping to conserve the natural resource base. Addressing governance therefore remains the key challenge for both poverty reduction and responsible fisheries."* (Allison and Horemans 2006).

These 'policies, institutions and processes' hinder or enable access to capital or livelihood strategies (i.e. access rights and regimes), determine the terms of exchange between different types of capital and the returns experienced from livelihood strategies (DFID 1999; Allison and Ellis 2001; Allison and Horemans 2006). This policy and institutional environment in turn also influences the livelihood strategies (i.e. ways of combining and using assets) that are available to people in order to achieve livelihood outcomes<sup>12</sup> that meet their livelihood objectives (DFID 1999).

Many livelihood strategies are employed by the poor in order to make the best use of the assets available in their environment (Glavovic *et al.* 2002). These strategies can vary spatially and temporally, can be used together or sequentially and do not necessarily complement each other (Glavovic *et al.* 2002). These may include: employment, pensions and grants, resource harvesting, trading and investment in social networks and services, amongst others (Glavovic *et al.* 2002).

Allison and Horemans (2006) list interventions that can strengthen the 'asset platform' and include the following: human – training, education, improved access to health facilities; natural – rehabilitation of degraded environments; assisting communities to use their resources more sustainably; financial – improve access to credit; savings mechanisms; physical – improve access to infrastructure; and social – strengthen community organization skills; building trust; inclusion of marginalised groups.

It is important that development initiatives focus on existing capital - the key to successful fisheries development is to focus on what fishers have, rather than what they do not (Allison and Ellis 2001). Therefore attention should be focused on

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<sup>12</sup> E.g. increased well-being, improved food security and reduced vulnerability



knowledge, skills, social capital, income generating-strategies and resource management, to aid fishers to build on existing capital and make their own way out of poverty (Allison and Ellis 2001). The Sustainable Livelihoods Framework is a holistic approach that puts people at the centre of development interventions, since sustainable poverty reduction will not be possible unless it takes into consideration current livelihood strategies, social circumstances and the people's ability to adapt (DFID 1999). It recognises that fishers' livelihoods depend on a range of assets and that building social and human capital can decrease poverty and vulnerability by supporting existing attempts to do so, whilst also addressing the institutional and policy factors that prevent them from protecting their fisheries resources (Allison and Horemans 2006).

### ***Diversity vs. Specialization***

Diversified livelihoods can be beneficial to resource protection (Allison and Ellis 2001) and should be encouraged over specialization. Policies should encourage part-time fishing, instead of trying to professionalise small-scale fishers and ban part-timers (Allison and Ellis 2001). The promotion of specialization by investing in capital-intensive technologies or assets will result in part-time fishers becoming full-time fishers, as they have loans to repay and need a return on their investment (Allison and Ellis 2001). As a result, fishers become more reliant on fishing, and during times of resource scarcity they will be less likely to revert to non-fisheries based livelihoods – this can have a negative impact on the resource as they will continue to harvest (Allison and Ellis 2001). In fact, Allison and Ellis (2001) suggest that a lack of livelihood diversity may be due to inappropriate interventions and management.

*“Rather than being specialized, and therefore vulnerable to a sudden change, many households in coastal communities are well situated to adapt to changing circumstances. The net result of this occupational diversity is that many coastal communities are best understood as dependent not on a single resource but on a whole ecosystem, marine and terrestrial.” (Pomeroy et al. 2006)*

Diverse sources of income can potentially buffer people in the event of one activity failing (Sievanen *et al.* 2005). If a wide range of assets are drawn upon, it can minimise susceptibility to shocks and minimise poverty (Glavovic *et al.* 2002). However, a lack of specialization on one or two assets can lead to greater poverty (Glavovic *et al.* 2002). Poor people often do not have access to a full suite of assets or they do not know how to access them (Glavovic *et al.* 2002).

*“Solving the problem of a lack of livelihood diversity is by no means simple. If it were, fishery-based economies would already have become diversified by now, in response to past fishery downturns”* (Charles 2001 in Allison and Ellis 2001).

Most fishers in low-income countries pursue a diversity of livelihood strategies as fishing is prone to unpredictable seasonal fluctuations in stock size and location, and because diversification reduces risk and vulnerability (Allison and Ellis 2001; FAO 2005; Sowman 2006). Sectoral policies do not adequately address this shift between various livelihood strategies and make it difficult for fishers to do so (Allison and Ellis 2001; Walmsley *et al.* 2006). Therefore, whilst specialization can be encouraged in more industrialised countries, it is not feasible in countries where fishers have traditionally adjusted their behaviour and turned to alternative forms of income when resources declined (Allison and Ellis 2001). In South Africa, the rights allocation system fails to recognise the array of livelihood strategies that are employed by fishers (Sowman 2006).

Thus whilst encouraging fishers to engage in livelihoods outside of the fishery sector; choosing appropriate alternatives is not simple and requires *“very careful assessment of existing livelihoods strategies, the assets of the poor, specific vulnerabilities and sources of risk, attitudes, and coping mechanisms”* (FAO 2005).

### ***Perceptions about “Community”***

A stumbling block to the successful implementation of sustainable livelihood initiatives is the common perception of fishing communities as homogenous, geographically isolated groups (Allison and Ellis 2001; Isaacs 2006). However, temporary migration to areas where fish are available is common practice and it is

necessary to distinguish between “new entrants” and traditional resource user groups (Allison and Ellis 2001). Further, within communities, households usually differ in terms of assets, incomes and religion (Allison and Ellis 2001). Because of the differences in wealth and status, people often do not have shared goals or interests (Allison and Ellis 2001). Similarly, ‘coastal communities’ often consist of multiple, often competing interest groups (Sunde 2003). Another concern is that better informed, politically connected and wealthier members of the fishing communities tend to be the main beneficiaries of quotas and access at the expense of poorer members of the community (Isaacs 2006; Sowman 2006).

The SLA does not make assumptions about ‘community’ – instead it supports Agrawal and Gibson’s (1999) call to “*abandon the notion of the ‘mythic community’ in favour of a focus on institutions, conceptualized as sets of rules describing and prescribing human actions*” (Allison and Ellis 2001). An institutional approach focuses on the ability of actors to make and enforce rules that are a product of social negotiation or compromise between stakeholders, and implies support of existing institutions (Allison and Ellis 2001). This approach is favoured over the creation of a perceived homogenous community (Allison and Ellis 2001). Isaacs (2006) cautions that in South Africa, government (MCM) often tries to implement a sustainable livelihoods approach using the term ‘community’ to imply a homogenous, geographically isolated group.

A weakness of the livelihoods approach is that it suggests the poor are capable of escaping poverty, through the possession of assets to create a sustainable livelihood (Isaacs 2006). However, most coastal communities are asset-poor and cash-dependant, with very little or no formal education (Isaacs 2006). Further, assets and the relationships between them change over time, and thus require some form of management to prevent depletion or degradation (Glavovic *et al.* 2002). The poor struggle to take a long term view of these assets, as they need to meet their immediate short-term needs (Glavovic *et al.* 2002).

Many coastal communities in South Africa are involved in a range of income earning opportunities, such as fisheries, agriculture, handicrafts and services on a seasonal or opportunistic basis (DEAT 2008a). There is no single strategy that has been

universally effective in providing sustainable livelihoods for the coastal poor, because the complexity of the coastal environment requires that multiple strategies are employed to address the diverse needs of coastal communities (DEAT 2008a). Many alternative livelihood initiatives that have been implemented have failed or proved unsustainable without continued funding (EEU 2008b). This is often due to a lack of understanding of the social and cultural dimensions as well as a lack of research and poor planning (EEU 2008b). Opportunities and constraints associated with sustainable alternative livelihood programmes have not been adequately assessed and is thus in itself a major limitation to the successful implementation of alternative livelihood opportunities for coastal communities (EEU 2008b).

The poor face many constraints and obstacles in achieving sustainable coastal livelihoods in South Africa (Glavovic *et al.* 2002). Obstacles relate mainly to: “*the lack of access to and ownership of coastal resources, limitations of the living natural resource base, institutional inadequacies, and a lack of skills and capacity/ awareness to develop opportunities*”. Even though MCMs focal point is managing marine resources, they also need to align their activities with national poverty alleviation and food security priorities (Sowman 2006). Thus government should facilitate the exploration of alternative livelihood opportunities with other relevant agencies (Sowman 2006).

In South Africa, many institutions and organizations have a role to play in developing sustainable coastal livelihood opportunities, including government agencies, NGOs, CBOs, research institutions and private sector institutions (Glavovic *et al.* 2002). Their roles, responsibilities and mandates are generally poorly defined and therefore the poor do not know who has jurisdiction over assets or who can provide them with support (Glavovic *et al.* 2002). Policies, laws and their related procedures and implementation practices are often overlapping, inconsistent and conflicting (Glavovic *et al.* 2002). Coastal Management Plans, for example, aim to provide co-ordinated management for a number of sensitive coastal areas. In effect, these should include proposals to identify opportunities for sustainable alternative livelihoods within their management area. Integrated Development Plans, which are developed at a local government level, may also contain proposals to identify and implement SCLs, although there is very little evidence of successful implementation of these.

Furthermore, many institutions are unaware of each others' role in the realm of coastal livelihoods, resulting in a lack of cooperation and coordination of activities. Provincial and Local government responsibility over coastal resources has increased, with little provision of additional resources to cope with new responsibilities. This is coupled with a lack of understanding of coastal management issues.

The Sustainable Livelihoods Framework organises all the factors that contribute to the livelihood strategy employed by individuals and allows thinking about livelihoods that orders the complexity of the various factors. The SLF promotes a holistic approach to livelihoods and it encourages one not to only look at abalone harvesting, but to also look at other activities fishers are involved in that contribute to their livelihood. This assisted in the development of the questionnaire which looked broadly at assets and livelihood strategies employed by fishers and asked fishers to identify what they considered to be opportunities and constraints associated with alternative livelihoods. Further, it helped to guide key questions asked of various stakeholders. The SLF assists in connecting all aspects of the enquiry, thus the policy, legal and institutional framework is discussed in greater detail in the next chapter.

### **2.3 Co-management**

Despite groundbreaking concepts such as 'Common Property Theory' and the 'Tragedy of the Commons', as well as advances in natural resource management, the degradation of natural resources is continuing (Hardin 1968; Ostrom 1990; Hara 2003). Resource managers are still struggling to remove the incentive for destructive competition due to the common property nature of natural resources (Hara 2003). Centralised state management has long been identified as one of the problems; and is becoming too costly for the state (Hara 2003). Similarly, sole management at the local level may also prove ineffective (Hara 2003).

Common property resources are those for which "*exclusion is difficult and joint use involves subtractability*" (Hara 2003). Thus, control of access to users is problematic or costly and each user's exploitation results in less of the resource being available to other users (Hara 2003). Thus there are two management issues: the need to regulate access to the resource and the need to regulate the level of exploitation amongst

authorised users (Hara 2003). If a management regime is to be effective, it must deal with both these issues (Hara 2003). Property rights are also an important consideration in a situation involving common property resources (Hara 2003). Property rights consist of a bundle of characteristics, i.e. *exclusivity, transferability, inheritability, alienability and enforcement mechanisms*, and define the legitimate uses which are exclusive and who has these exclusive rights (Hara 2003).

In addition, the call for greater public participation and resource user involvement in natural resource management has been incorporated into various international and regional conventions (Hauck and Sowman 2003; Pedersen and Sunde 2007). Various management approaches exist, and a variety of possible collaborative management approaches can be put in place to facilitate decentralised and participative resource management allowing resource users to be involved in management and decision-making (Hauck and Sowman 2003; Pomeroy and Berkes 1997). Excluding the very people you are trying to manage (resource users) from being involved in management decisions, will almost guarantee that the measures put in place will not be successful (Hara 2003). By engaging resource users in management, the hope is that users would act more responsibly towards the long term goal of sustainability (Hara 2003). A system that is collaborative, transparent, participatory and inclusionary is the most effective way to approach the management of small-scale fisheries. However, each management initiative should take stock of the context within which it is operating to ensure that measures put in place are realistic (Sen and Raakjaer Nielsen 1996).

Co-management is joint management through delegation and power sharing; where resource-users and government share decision making and management powers (Sen and Raakjaer Nielsen 1996; Symes and Phillipson 1999; Hara 2003; Hauck and Sowman 2003; McConney et al. 2003; Raakjaer Nielsen *et al.* 2004; Beem 2007; Suarez de Viviero *et al.* 2008). The general functions of co-management are “*the encouragement of partnerships, provision of local incentives for sustainable use of resources, and the sharing of power and responsibility for conservation*” (Hara 2003). According to Pomeroy *et al.* (2001) co-management is a compromise between government concerns for efficient resource utilisation and protection on the one hand and resource users’ concern for equal opportunities, self-determination and self-control on the other. The continuum or spectrum of co-management allows

responsibility to be delegated and shared based on the capabilities of resource users and government. The extent to which government devolves decision-making powers to resource users is dependant on a number of factors: the extent of political support for user involvement; the existing legislative provisions; and the capacity, skills and resources of the different stakeholders (Sen and Raakjaer Nielsen 1996; Symes and Phillipson 1999; Hara 2003; Hauck and Sowman 2003; Raakjaer Nielsen *et al.* 2004; Suarez de Vivero *et al.* 2008). Ideally however, co-management gives user groups real influence in that their input makes a difference in the decision-making process (Hara 2003). Support for co-management results from the view that concerned interests should be heard; information from resource users would result in improved management decisions; and that it could improve legitimacy of the management system since no management arrangement will work unless it has the support of those whose behaviour it intends to influence (Hara 2003).

The continuum or spectrum of co-management arrangements is classified according to the roles that government and users play (See Figure 2). 'Instructive': minimal exchange of information between users and government (government informs users on the decisions they plan to make); 'consultative': all decisions are taken by government, but mechanisms exist for consultation; 'cooperative': government and users are equal partners in decision-making; 'advisory': the users advise government of decisions to be taken; and 'informative': powers to make decisions are delegated to user groups. For many, 'cooperative' co-management is *the* definition of co-management (adapted from Sen and Raakjaer Nielsen 1996). See also: Symes and Phillipson 1999; Hara 2003; Raakjaer Nielsen *et al.* 2004; Suarez de Vivero *et al.* (2008). Co-management is usually considered to lie somewhere in the middle, so that fishers or resource users are not merely providing information, as is so often the case in government/stakeholder relations (Beem 2007). Co-management must be based on mutual respect and trust and it is important that "*the autonomy of both the state and resource users, in their respective areas of responsibility, is fully recognised and respected by both parties*" (Hara 2003).

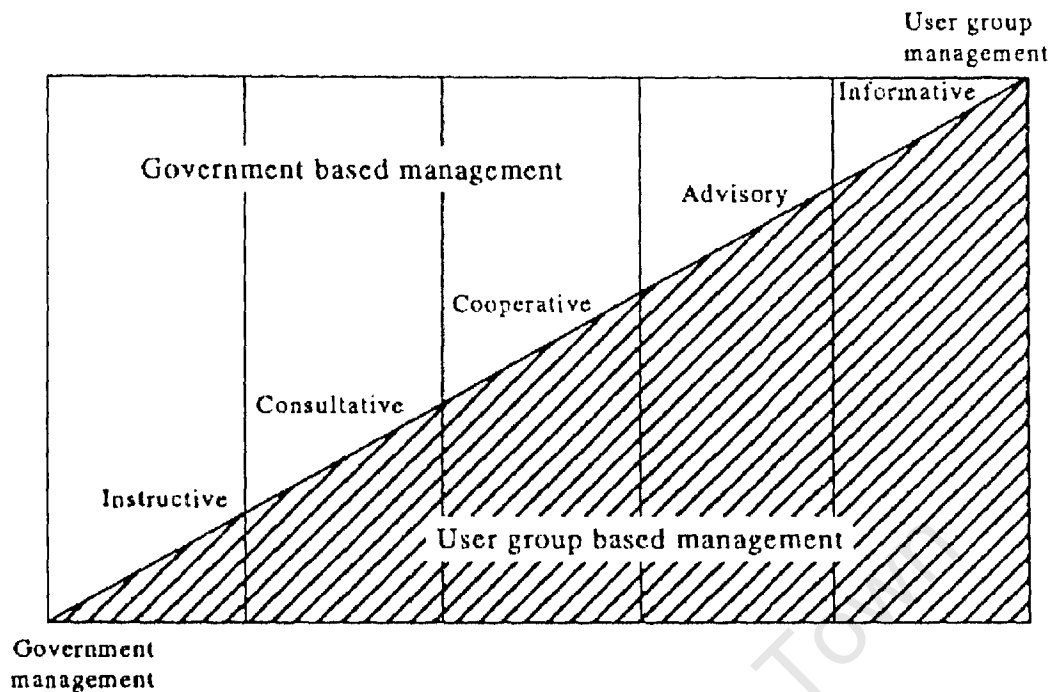


Figure 2. The continuum of co-management arrangements. Adapted from Sen and Raakjaer-Nielsen 1996.

Institutions are the formal and informal sets of rules and types of interactions that people develop in order to function effectively (McConney et al. 2003). Co-management institutions that are based on the democratic representation of the fishers have more staying power than those that are not (Mahon and Wilson 2003). Effective management is adaptive and responds well to social and biological information (Mahon and Wilson 2003). Thus, the smaller the scale an institution is operating on the better able it is able to understand and respond to information (Mahon and Wilson 2003). Mahon and Wilson (2003) state that communities which need government help in resolving conflicts are the most ripe for the creation of effective, self motivated, co-management institutions.

Co-management is often implemented in situations where problems related to overexploitation of resources, increases in illegal harvesting, and tensions between local communities and authorities exist (Sen and Raakjaer Nielsen 1996; Hauck and Sowman 2001; Hara 2003). Therefore it is often implemented in response to a particular crisis (Sen and Raakjaer Nielsen 1996; Hauck and Sowman 2001; Kaplan and McCay 2004). Limited capacity in governments to enforce regulations and implement management plans (Hauck and Sowman 2001) is necessitating devolution



of management responsibilities. Also, in the South African context, the policy and legislative framework requires that government devolve power and embrace sustainable development principles (Hauck and Sowman 2001). Factors that impact on the success of the co-management of common pool resources include the attributes of the community (i.e. they are relatively homogenous; rule changes will affect them equally and the costs of transformation are relatively low), the resource (i.e. difficulty of exclusion and subtractability), the nature of the rules governing use, and the relationship of the groups to external forces (Beem 2007).

There is a growing awareness of the benefits of including local user groups in management and decision-making and that this can lead to better management (Beem 2007). These include: better information about the resource, including local knowledge suited to the context and broadening the amount of knowledge that would influence decisions; improved compliance with management protocols due to support and greater perceived procedural legitimacy from users as a result of their involvement and in turn, buy-in from the people they are trying to regulate decreases transaction costs<sup>13</sup> (Hauck and Sowman 2001; Hara 2003; van Sittert 2003; Defeo and Castilla 2005; Beem 2007; Berghöfer *et al.* 2008).

Enhancing the capacity of user groups to undertake co-management responsibilities is a challenge that requires time, effort and finances (Frangoudes *et al.* 2008). Further, a lack of capacity is seen as a major stumbling block to successful implementation of co-management (Hauck and Sowman 2001). The formation of local level institutions or management structures within the community<sup>14</sup> will require support and capacity building in order to 'get off the ground' (Hauck and Sowman 2001; Raakjaer Nielsen *et al.* 2004). It is vital that resource users understand why co-management is being implemented i.e. that they understand sustainable resource practices (Hauck and Sowman 2001). Building capacity of local management structures and individuals, will lead to empowerment of resource users (Hauck and Sowman 2001). It can be argued that empowerment and skills development will give users confidence to explore other forms of work. Establishing relationships between stakeholders is vital as mutual respect and trust are the foundations of co-management (Symes and

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<sup>13</sup> i.e. the time, money and manpower that is usually spent on enforcement, control, monitoring and surveillance

<sup>14</sup> Community is being referred to in the generic sense i.e. the community in question/ affected community

Phillipson 1999). There is no one model of co-management that can be applied because what type and how much responsibility to devolve is dependant on the political and local context, the capabilities of resource users, and how much power government is willing to devolve (Sen and Raakjaer Nielsen 1996; Hauck and Sowman 2001; Hara 2003; Sowman 2006).

Ideally, co-management arrangements need to be in place before resource conditions decline to a state of scarcity (Hara 2003). Often co-management is introduced once the resource is already declining, and objective becomes the recovery of the resource which requires reduced exploitation (Hara 2003). In this situation, co-management alone cannot solve the problem of over-exploitation, and alternative sources of livelihood become closely linked to resource recovery and the success of the management strategy (Hara 2003). Co-management also cannot be expected to overcome problems related to rapid population growth, corruption or open access property regimes, which may be the main causes of resource degradation (Hara 2003). Further, the introduction of a co-management arrangement is time and money consuming (Hara 2003).

There are numerous challenges facing the effective implementation of co-management in South Africa. Firstly, with political transformation and new policies and legislation, there is often a lack of clarity regarding roles and responsibilities within government. Coupled with the inefficiency and lack of capacity of people within government, there is a sense that government is not committed to co-management practices (Hauck and Sowman 2001; Masifundise 2007). In addition many members of the scientific community are sceptical about co-management and whether resource users are capable of management responsibilities (Hauck and Sowman 2001). This creates a dilemma in terms of implementation, because while there is a growing awareness that top down centralised methods do not work (Symes and Phillipson 1999; Raakjaer Nielsen *et al.* 2004) a lack of support for new methods does not encourage confidence, trust and participation on the part of resource users. Ultimately, resource users decide whether or not a management system will work, and thus their perception of the legitimacy of regulatory decisions is vital (Hara 2003).

Hara (2003) points out that co-management in coastal environments is particularly difficult due to the large number of user groups and stakeholders. Thus coastal areas are characterised by “*the heterogeneity of users with uneven powers, conflicting interests, unequal bargaining powers and different stakeholder values and rationalities*” (Hara 2003). This in turn makes deliberation and participant democracy more difficult to achieve and consensus rare (Hara 2003).

Key conditions for successful co-management arrangements include suitable local and governmental institutions, trust between the actors (particularly due to the deep-rooted culture of distrust that characterises the relationship between state and local resource users), legal protection of local rights and economic incentives for local communities to conserve the resource (Hara 2003). Further, it is vital that case studies of co-management be used to ascertain which factors led to the success or failure of similar initiatives. These conditions need to be understood and investigated.

Further, whilst much research examines the efficacy of co-management institutions once they have been established; there is little attention to the processes through which alternative forms of management and decision-making are considered and changed (Beem 2007). It is vital that we examine the process of developing co-management institutions and which factors facilitate or hamper the support of user groups to co-management (Beem 2007). The process of developing co-management institutions is time consuming and resource users do not always embrace changes to the status quo (Beem 2007). Factors which facilitate the development of co-management institutions include government support, the characteristics of resource users and the resource, the nature of distributional conflict<sup>15</sup> and the affiliation of policy entrepreneurs<sup>16</sup> (Beem 2007).

Similar to the decision to close the abalone fishery in South Africa, the Chilean loco fishery was closed between 1989 and 1992 due to overexploitation as a result of the open-access state of benthic resource fishing and the newly opened export markets (Castilla et al. 2005; Defeo and Castilla 2005). In 1991, TURFs were allocated to

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<sup>15</sup> These conflicts are primarily concerned with the distribution or resources of access. These conflicts could provided the impetus for new rules to emerge as stakeholders, recognizing benefits of rule change, are willing to invest time and resources into the process to develop these new rules (Beem 2007).

<sup>16</sup> Facilitating a new type of institutional arrangement may require an individual with time and resources to advance a new policy direction – this person is known as a policy entrepreneur.

artisanal fishers in what were known as “Management and Exploitation Areas for Benthic Resources” (MEABRs) (Castilla et al. 2005; Defeo and Castilla 2005). Coastal benthic shellfisheries, due to their sedentary or sessile nature are amenable to spatially-explicit management tools such as TURFs (Defeo and Castilla 2005). In benthic shellfisheries, where the community is geographically well-defined and matches the scales of distribution of the stocks, management sub-units can be clearly established and co-management arrangements tend to be meaningful (Defeo and Castilla 2005).

MEABRs are a management alternative under which government and fishers shared responsibility for benthic resource sustainability (Castilla et al. 2005). However, the regulations were only published in 1997 and up until then, those fisher syndicates (or associations) who wished to engage in the MEABR policy did so informally with the support of university researchers (Castilla et al. 2005). In 1997, TURFs were legalised and given to artisanal fisher syndicates in the form of MEABRs. By 2000, the MEABRs were being harvested.

The co-management arrangements behind the MEABR Policy required fisher syndicates to co-finance a baseline study for their MEABR from which quotas and management plans were created (Castilla et al. 2005). In addition, fishers must pay for annual follow up assessments by certified consultants to determine any changes in TACs or adjustments to the management plan (Castilla et al. 2005; Defeo and Castilla 2005). Initially, the government co-financed the implementation of MEABRs as they were the basis for managing the loco fishery (Castilla et al. 2005). The aim was to increase the sense of exclusive use and thus ownership among fishers (Castilla et al. 2005; Defeo and Castilla 2005). Further, the government put a ban on loco extraction apart from MEABRs with approved management plans (Castilla et al. 2005).

Fisher communities self-organised into syndicates and applied for MEABRs creating partnerships with government, consultants and universities. Further, monitoring, control and surveillance procedures were put in place by fishers themselves to stop poaching within MEABRs (Castilla et al. 2005; Defeo and Castilla 2005). Also, participatory and regulatory rules were developed within communities (Castilla et al. 2005). This was all as a result of a sense of ownership, pride and responsibility that

was created by the policy which assigned fishing grounds to well-defined groups of fishers, recognizing the role of small-scale communities in conservation and management (Castilla et al. 2005). Castilla et al. (2005) also state that community quotas as opposed to individual quotas gave the right incentives for cooperation between fishers.

Self-organisation and empowerment has led to a change in the attitudes of fishers towards the management and conservation of resources; with many agreeing that fishers have a duty to conserve marine resources for the next generation (Castilla et al. 2005). This perception of their role in the conservation of marine species was generated through co-management. Thus in Chile, the implementation of co-management strategies in addition to the allocation of property rights has been necessary for the management of benthic invertebrates (Castilla et al. 2005).

However, despite the success of the MEABRs, no studies have examined the social consequences of the policy (Castilla et al. 2005). Those open-access areas that have not been declared as MEABRs are becoming scarce and overexploited. Some fishers (divers) complain that MEABRs are being indiscriminately extended, leaving many divers with nowhere to go. The lack of historical open-access diving grounds is leading to conflict between divers and illegal poaching within the MEABRs (Castilla et al. 2005). These fishers feel it is their right to do so as they claim that the syndicates who applied for MEABRs extracted resources from the open access sites in order to re-populate their MEABRs (Castilla et al. 2005).

Hauck and Sweijd (1999) highlight that the establishment of co-management arrangements is more complex in the abalone fishery because it includes an organised criminal element, yet they stress that the notion should not be abandoned. Hauck and Sweijd (1999) identify the need to involve the community in crime prevention, enforcement, awareness, resource ownership, resource management and local governance, and to establish partnerships between initiatives. Whilst law enforcement does have a role to play, particularly in intelligence and policing, confrontational crime-control methods on the ground will not be the most effective in addressing poaching (Hauck and Sweijd 1999).

### **3. Legal and Institutional Framework governing abalone management in South Africa**

There are a number of international, regional and national policies and protocols that are relevant to small-scale fisheries. South Africa has signed a number of international agreements and these have played a part in guiding the law reform process. Laws and policies in South Africa encourage participative, collaborative and holistic approaches to resource management, and aim to address the inequalities of the past. This chapter will outline the main laws, policies and protocols that are of general relevance to small-scale fisheries and more specifically to the abalone fishery in South Africa. It will also provide an overview of the key institutional arrangements relevant to the management of the Abalone fishery.

#### **3.1 International Instruments**

##### ***UNCLOS***

The United Nations Convention on the Law of the Sea (UNCLOS) is a key international agreement that has significant influence over domestic fisheries policy (Witbooi 2006). It establishes a legal regime for the ocean and marine resources, therein recognizing the autonomous right that coastal states have over their territorial waters and to natural resources within a 200 nautical mile exclusive economic zone (EEZ) (Glazewski 2005; Witbooi 2006). States specifically have to determine TACs of marine living resources within their EEZs and must ensure “proper” conservation and management to avoid overexploitation (Witbooi 2006). UNCLOS also states that a country must prioritise its national interests and local livelihoods before giving access to its fisheries resources to other countries (Sowman and Cardoso 2008). South Africa has incorporated provisions of the UNCLOS into its legal regime, via the Maritime Zones Act 15 of 1994 and the MLRA (Witbooi 2006).

Article 61 states that “*the coastal State, taking into account the best scientific evidence available to it, shall ensure through proper conservation and management measures that the maintenance of the living resources in the exclusive economic zone is not endangered by overexploitation*”. Further, “*such measures shall also be*

*designed to maintain or restore populations of harvested species at levels which can produce the maximum sustainable yield, as qualified by relevant environmental and economic factors, including the economic needs of coastal fishing communities... ”*

### ***UN FAO Code of Conduct of Responsible Fisheries***

The United Nations Food and Agricultural Organisation Code of Conduct for Responsible Fisheries “*provides a framework of principles and standards for efforts to promote responsible fishing worldwide through the effective conservation, management and development of marine resources*” (Witbooi 2006). Specifically, it emphasises the need to promote the goal of sustainable development in fisheries (Witbooi 2006). This policy document is influential, despite the fact that it is voluntary and does not impose legal obligation on parties (Witbooi 2006). The overarching goals of the FAO Code of Conduct are reflected in the principles and objectives underpinning the MLRA (Witbooi 2006).

One of the objectives of the Code is to “*promote the contribution of fisheries to food security and food quality, giving priority to the nutritional needs of local communities*”. The Code recommends that States should protect the rights of fishers and fish workers (particularly subsistence, small-scale and artisanal) to a secure livelihood and provide them with preferential access to fishing grounds and resources<sup>17</sup>. Further, “*when deciding on the use, conservation and management of fisheries resources, due recognition should be given, as appropriate, in accordance with national laws and regulations, to the traditional practices, needs and interests of indigenous people and local fishing communities which are highly dependent on fishery resources for their livelihood*”<sup>18</sup>.

As with the UNCLOS, the UN FAO Code, states that “*conservation and management decisions for fisheries should be based on the best scientific evidence available, also taking into account traditional knowledge of the resources and their habitat, as well as relevant environmental, economic and social factors*”.

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<sup>17</sup> Principle 6.18

<sup>18</sup> Principle 7.6.6

In terms of policy measures, the Code encourages States to promote participation in management processes by those affected<sup>19</sup>; to take into account economic, social and cultural factors in order to assist decision-making on the allocation and use of coastal resources<sup>20</sup> and; that States should promote multidisciplinary research in support of coastal area management.

### ***Convention on Biological Diversity***

The 1992 Convention on Biological Diversity (CBD) promotes the conservation, sustainable use as well as equitable sharing of the benefits derived from the use of biological diversity (Witbooi 2006). Included is marine biodiversity and the implementations of the Conventions' provisions are expressly required to be consistent with UNCLOS (Witbooi 2006).

The CBDs Jakarta Mandate on Marine and Coastal Biological Diversity promotes the “*conservation and long-term sustainable use of marine and coastal living resources in a manner that respects both societal interests and the integrity of ecosystems*” (Witbooi 2006). The White Paper for the Conservation and Sustainable use of South Africa’s Biological Diversity (1997) and consequently the NEM: Biodiversity Act 10 of 2004 incorporates provisions of the CBD into domestic law (Witbooi 2006). The Act does not make specific reference to marine and coastal resource management, but contains a broad definition of “biodiversity” and is thus applicable (Witbooi 2006).

### ***Convention on International Trade in Endangered Species of wild fauna and flora (CITES)***

CITES was negotiated in 1973 when it was realised that international trade in wildlife and wildlife products could lead to the overexploitation of certain species, thus threatening them with extinction (CITES 2008b). CITES came into force in South Africa on 13 October 1975 (CITES 2008b). CITES works by requiring that international trade in specimens of selected species adhere to certain controls (DEAT 2006). Thus importing and exporting of species covered by the Convention must be authorised through a licensing system (DEAT 2006).

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<sup>19</sup> Principle 10.2.1

<sup>20</sup> Principle 10.2.2



In an attempt to halt the illegal trade in abalone, the listing of South African abalone, *Haliotis midae*, on CITES Appendix III came into effect on 3 May 2007 (Science in Africa 2007). CITES Appendix III lists species that are not necessarily threatened with extinction; but that may become so unless trade is closely controlled (CITES 2008). All trade consignments of abalone now have to be accompanied by CITES documentation (Science in Africa 2007). Further, by listing *H. midae* on Appendix III it automatically enlists the assistance of consumer states in monitoring and regulating the trade in abalone (Science in Africa 2007). Thus any consignment of abalone that is not accompanied by the relevant documentation is illegal.

### **3.2 Regional Instruments**

#### ***SADC Protocol on Fisheries***

A regional convention of relevance to fisheries management in South Africa is the Southern African Development Community (SADC) Protocol on Fisheries, which was signed in 2001 and came into force in August 2003 (Glazewski 2005; Witbooi 2006). Although South Africa is party to the Protocol, it has yet to be approved by cabinet (Glazewski 2005; Witbooi 2006). The purpose of the Protocol is to promote food security, alleviate poverty, generate economic and livelihood opportunities for fishing communities and ensure the sustainable use of marine resources (Glazewski 2005; Witbooi 2006).

A specific objective is to “*safeguard the livelihood of fishing communities*”; and one of the principles is that state parties must “*regulate the use of living aquatic resources and protect the resources against over-exploitation, whilst creating an enabling environment and building capacity for the sustainable utilisation of the resources*”. Further, it requires that states ensure the participation of all stakeholders in promoting the objectives of the protocol (Daniels *et al.* 2006).

Article 12 of the Protocol refers specifically to artisanal, subsistence and small-scale commercial fisheries. State parties are required to seek a “*rational and equitable balance between social and economic objectives*” through the provision of legal, administrative and enforcement measures to protect fishing rights, tenure and fishing

grounds of artisanal and subsistence fishers (Cullinan *et al.* 2005 p4 in Sowman and Cardoso 2008). Where an aquatic species is endangered, State Parties are required to “*seek alternative economic activities for those persons whose activities threaten the survival of the endangered species*” (Article 14: 4 d).

Although South Africa is a party to the SADC Protocol on Fisheries and has indicated support for the FAO Code of Conduct for Responsible Fisheries, neither of these agreements has been adequately implemented and the extent to which the interests of poor fishers are being met has been questioned (Sowman 2006).

### **3.3 South African National Policy and Legal Framework relevant to fisheries management**

Policies and laws of the colonial and apartheid periods largely denied “black”<sup>21</sup> South Africans access to marine resources (Hauck and Sowman 2003). Most laws dealing with access to marine resources were focused on the control of commercial activities, and in later years, recreational fishing (Hauck and Sowman 2003). Other laws prevented sectors of the population from gaining access to the seashore as most of it was under private or state ownership (Hauck and Sowman 2003). Pre-1994, subsistence fishers had no legal rights to access marine resources and were not recognised as a legitimate sector in the fisheries management legislation (Hauck and Sowman 2003). This, despite the fact that evidence suggests subsistence fishers have been harvesting coastal and marine resources for thousands of years (Hauck and Sowman 2003).

Prior to the publication of the White Paper for Sustainable Coastal Development (2000) there was no coherent and integrated policy framework for the sustainable use, development and management of coastal areas and resources (Hauck and Sowman 2003). In the 1980s, the importance of an integrated approach to coastal management was recognised, and a number of guideline documents were published (Hauck and Sowman 2003). Despite these initiatives, coastal management was regarded as the responsibility of the coastal management office within the national Department of

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<sup>21</sup> “Black” is a generic term in South Africa for those ethnic groups identified by apartheid policy as “Indian”, “African” or “Coloured” (van Sittert *et al.* 2006)

Environmental Affairs and Tourism (DEAT), and sectoral departments continued to execute their functions in coastal areas without embracing existing coastal management principles and guidelines (Hauck and Sowman 2003, p46).

The transition to democracy in South Africa has resulted in a plethora of new laws and policies being promulgated, a number of which are applicable to natural resource management (Hauck and Sowman 2003; Sowman and Brown 2006). *“Principles of decentralisation, public participation, equity, social and environmental justice, co-operation and integration are now firmly on the government’s agenda”* (Sowman and Brown 2006). The extent to which these policies and laws have been successfully institutionalised and implemented is limited (Hauck and Sowman 2003). Obstacles to adopting a more integrated approach to coastal management in South Africa include: a lack of coordination between government departments that are responsible for coastal management; insufficient financial resources; inadequate mechanisms for implementation; lack of institutional capacity, specifically staff and skills; and a lack of knowledge regarding the value of the coast and its role in sustainable development (Hauck and Sowman 2003).

### ***The Constitution***

The Constitution of South Africa aims to redress past injustices and promote equality and is guided by the rights laid out in the Bill of Rights (Witbooi 2006). All government actions must be guided and measured against these rights and thus the Bill of Rights played a vital role in fisheries law reform, as well as providing the statutory framework within which fisheries management decisions must be made (Witbooi 2006).

*“Equitable access to resources, sustainable use of natural resources, access to information and involvement of the public in decisions and management are key principles embraced in the 1996 Constitution”* (Hauck and Sowman 2003, p47). Accordingly, these principles are embedded in many of the new policies and legislation relevant to natural resource management (Hauck and Sowman 2003).

The Environmental Right guarantees that everyone has the right to an environment that is not harmful to their health or well-being; and that the state, through reasonable legislative and other measures, will protect the environment and prevent ecological degradation (Witbooi 2006). The property right is relevant to fisheries, as access rights are considered property<sup>22</sup>, thus in addition to protecting property rights; redistribution is specifically condoned (Witbooi 2006). The Just Administrative Action Clause, read together with Promotion of Administrative Justice Act (2000) (PAJA) is relevant, as decisions taken by authorities, for example the determination of TACs and allocation of fishing rights, must comply with these provisions (Witbooi 2006). The Right of Access to Information Clause and the Promotion of Access to Information Act (PAIA) are relevant as they are useful for determining how decisions were reached, for instance how the TAC was determined and portions allocated (Witbooi 2006). Further, both the NEMA and MLRA contain sections that relate to the right to access to information and transparency, respectively (Witbooi 2006).

The Constitution also makes provision for socio-economic rights, including the right to sufficient food and water and the right to choose an occupation. The State may not act in a way that infringes upon these socio-economic rights directly (Daniels *et al.* 2006). However, these rights must be balanced against the environmental rights and obligations to promote sustainable development (Daniels *et al.* 2006). Similarly, the MLRA requires that socio-economic rights to food be balanced against the conservation of marine living resources and the sustainable development of the resource (Daniels *et al.* 2006).

Following the enactment of the Constitution, the government embarked on a law reform process to align the domestic legislation with the new constitutional framework (Witbooi 2006). Numerous policies and statutes were developed ranging from general to sector-specific natural resource management (Witbooi 2006). There was however a tendency to regulate natural resources in a sectoral manner; thus creating artificial divisions and hampering integrated environmental management because different laws are within the domain of different government departments (Witbooi 2006).

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<sup>22</sup> According to Daniels *et al.* (2006), the granting of rights and permission to harvest abalone does not confer a real right in the private law sense, but rather a statutory entitlement to take part in activities that would otherwise be prohibited by the MLRA.

Policies and Laws of relevance to marine and coastal management include: the White Paper on Marine Fisheries Policy for South Africa (1997), the White Paper for the Conservation and Sustainable Use of South Africa's Biological Diversity (1997), the Marine Living Resources Act (1998), the National Environmental Management Act (1998), and the White Paper for Sustainable Coastal Development in South Africa (2000). All these documents stress the importance of local community involvement in resource management as well as the development of partnerships between the relevant local conservation authorities, resource users and other stakeholders (Hauck and Sowman 2003). The Coastal Policy Green Paper (September 1998), which preceded the White Paper, provides an interesting insight into the thinking that laid the foundation of the new Act. However, many of the ideas and intentions of the Green Paper were not carried through to the final Act.

### ***National Environmental Management Act***

The National Environmental Management Act (NEMA) No 107 of 1998 is South Africa's over-arching piece of environmental legislation and provides the framework for environmental governance (Hauck and Sowman 2003; Witbooi 2008). It is underpinned by a set of environmental management principles that promote sustainable development (Witbooi 2006). Features of the act include: cooperative governance and partnerships; the participation and inclusion of civil society in environmental governance; conflict resolution mechanisms; the duty of care provision – which makes it the responsibility of all citizens to prevent environmental damage; and improved decision making through the application and integration of a set of principles by all organs of state (Hauck and Sowman 2003; Witbooi 2006). Through Environmental Management Cooperation Agreements, NEMA puts emphasis on and provides the 'legal vehicle' for the formation of partnerships between resource users, government and other stakeholders (Hauck and Sowman 2003).

The NEMA sets out a number of principles to which ALL organs of state are bound, including: equitable access to natural resources – with particular emphasis on previously disadvantaged persons; equitable participation of interested and affected parties (IAPs) in environmental governance; decisions must be open and transparent and access to information must be provided; and decisions must take into account the

needs and interests of all IAPs (Hauck and Sowman 2003; Witbooi 2006). According to Hauck and Sowman (2003) the NEMA principles have in general been incorporated into the new fisheries and coastal policies.

Specific Principles of the NEMA, which are of relevance to the decision to close the abalone fishery, include:

- (i) Environmental management must place people and their needs at the forefront of its concern, and serve their physical, psychological, developmental, cultural and social interests equitably;*
- (ii) That the development, use and exploitation of renewable resources and the ecosystems of which they are part do not exceed the level beyond which their integrity is jeopardised;*
- (iii) That a risk-averse and cautious approach is applied, which takes into account the limits of current knowledge about the consequences of decisions and actions;*
- (iv) The social, economic and environmental impacts of activities, including disadvantages and benefits must be considered, assessed and evaluated, and decisions must be appropriate in the light of such consideration and assessment*
- (v) Decisions must be taken in an open and transparent manner, and access to information must be provided in accordance with the law.*

The principles of public participation are entrenched in environmental decision-making (Daniels *et al.* 2006). Principles that apply to all organs of state and that must guide the implementation of any law concerned with the protection of the environment include:

- (i) The participation of all interested and affected parties in environmental governance must be promoted, and all people must have the opportunity to develop the understanding, skills and capacity necessary for achieving equitable and effective participation, and participation by vulnerable and disadvantaged persons must be ensured.*
- (ii) Decisions must take into account the interests, needs and values of all interested and affected parties, and this includes recognizing all forms of knowledge, including traditional and ordinary knowledge.*

## ***The White Paper on Marine Fisheries Policy for South Africa and the Marine Living Resources Act***

The new government promised '*the upliftment of impoverished coastal communities through improved access to marine resources*' (ANC 1994, p104 in Hauck and Sowman 2003, p49). A special Committee (the Access Rights Technical Committee) was appointed to investigate access rights options for fishers during the policy formulation process (Hauck and Sowman 2003). The Committee found that there were expectations that access rights should be broadened to include those who were previously denied rights for political reasons (ARTC 1996, p5 in Hauck and Sowman 2003). The White Paper on Marine Fisheries Policy for South Africa (1997) therefore put emphasis on addressing inequity and broadening access to marine resources (Hauck and Sowman 2003). At the same time, it warns that "open or liberal" access to marine resources will result in depletion or even extinction of resources (Witbooi 2006). A few of the same principles underpinning the Marine Fisheries White Paper were later carried through to the MLRA (1998) and provided the three pillars on which the Act is based namely: sustainability, equity and stability (Hauck and Sowman 2003; Witbooi 2006).

The MLRA aims to ensure the sustainable use of marine living resources and the promotion of equitable access to resources, whilst at the same time redressing historical imbalances, transforming the fishing industry and encouraging socio-economic benefits for coastal communities (Hauck and Sowman 2003; Witbooi 2006). The MLRA gives attention to inshore and coastal resources, whereas previously laws and policies were concerned with offshore fishing industries (Hauck and Sowman 2003). Transformation within the fishing industry has been seen as a "foundational" principle of the act and refers particularly to granting access to new entrants from historically disadvantaged sectors of society (Witbooi 2006). However, transformation and ecological sustainability are potentially competing goals and the MLRA does not address how these are to be put into practice (Witbooi 2006). As a result, this responsibility falls on decision-makers and consequently a number of rights allocation decisions have been challenged (Witbooi 2006).

The MLRA makes use of both output (TACs, quotas and size restrictions) and input (type of gear, methods of fishing, numbers and type of fishing vessels) controls for managing fisheries (Witbooi 2006). Further, gear and species restrictions and closed seasons are imposed by regulations (Witbooi 2006). This combination of management methods can contribute towards sustainable fisheries. However in the absence of sufficient and effective control, they can result in adverse effects on sustainability (Witbooi 2006). Quotas, in particular, have led to numerous administrative difficulties (Witbooi 2006).

Both the White Paper and the MLRA recognise, for the first time, subsistence fishers as a legitimate category within the fishing sector (Hauck *et al.* 2002; Hauck and Sowman 2003). Prior to this, small-scale fishers were considered 'illegal' or operated under regulations for recreational fishers (Sowman 2006; Hauck 2008). Subsistence fishers can apply for legal rights to undertake fishing activities as laid out in the MRLA (Hauck and Sowman 2003). Allocation of rights has been mainly through the allocation of subsistence fishing rights and 'limited commercial' rights, which are a small-scale quota allocation (Hauck 2008).

In 1999, the Subsistence Fisheries Task Group (SFTG) was appointed to advise the government on the management of the subsistence fisheries sector (Hauck and Sowman 2003). According to Hauck and Sowman (2003), the SFTG developed a comprehensive set of recommendations; yet MCM has been slow in putting in place the necessary institutional structures and administrative procedures to implement these.

Further, "broad and accountable participation" of resource users and relevant stakeholders in fisheries management has been stressed in the fisheries White Paper and the MLRA (Hauck and Sowman 2003; Witbooi 2006). However, even though major progress has been made with the laws and policies governing marine living resources, their implementation has been fraught with problems particularly relating to the lack of institutional capacity and skills within MCM to implement the provisions of the MLRA (Hauck and Sowman 2003).



***Principles in the MLRA, which are of relevance to the closure of the fishery***

The MLRA has a number of principles, which are of direct relevance to the closure of the abalone fishery. These are as follows:

- (i) The need to achieve optimum utilisation and ecologically sustainable development of marine living resources;*
- (ii) The need to conserve marine living resources for both present and future generations;*
- (iii) The need to apply precautionary approaches in respect of the management and development of marine living resources;*
- (iv) The need to utilise marine living resources to achieve economic growth, human resource development, capacity building within fisheries and mariculture branches, employment creation and a sound ecological balance consistent with the development objectives of the national government;*
- (v) The need to preserve marine biodiversity;*
- (vi) The need to achieve to the extent practicable a broad and accountable participation in the decision-making processes provided for in this Act;*

In terms of the MLRA, the Minister is responsible for determining the TAC<sup>23</sup> and may determine that the TAC shall be nil<sup>24</sup>. Further, if an emergency occurs that endangers or may endanger stocks of any species of aquatic life in any fishery, the Minister may suspend all fishing in that fishery<sup>25</sup>. Particulars of any emergency measures shall be made known by notice in the Gazette or in any other appropriate manner<sup>26</sup>.

All rights granted to person in terms of Section 18 of the MLRA are valid for a period determined by the Minister, after which the right is terminated and the state may reallocate that right<sup>27</sup>. However, if the Minister is of the opinion that it is in the interests of the promotion, protection or utilisation on a sustainable basis of a particular marine living resource, he may “*at any time by written notice to the holder of a right, licence or permit, revoke, suspend, cancel or reduce that right, licence or*

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<sup>23</sup> S14 (1)

<sup>24</sup> S14 (5) (a)

<sup>25</sup> S16 (1) (a)

<sup>26</sup> S16 (2)

<sup>27</sup> S18 (6)

*permit*<sup>28</sup>". The Minister is also allowed to declare any area to be a "priority fishing area" (PFA) to promote authorised fishing within the area in question. This power may be of assistance in implementing closure; in that all activities may be prohibited, except for the harvesting of abalone by legal permit holders in the "PFA". This could assist policing in that only legal permit holders would be allowed to enter the "PFA". In this manner, authorised harvesting is not prejudiced by poaching activities in the area (Daniels *et al.* 2006).

The Minister is also entitled to declare an emergency in the fishery and suspend all or any fishing in the fishery if "*an emergency occurs that endangers or may endanger stocks of fish or aquatic life*". The Minister must provide notification of this decision in the Government Gazette or in any other "appropriate manner". The definition of 'emergency' is not given in the MLRA; but the Oxford English Dictionary defines an emergency as "*a serious, unexpected, and potentially dangerous situation requiring immediate action*". Similarly, the definition of 'emergency incident' in NEMA is "*an unexpected sudden occurrence*". Thus it seems that the Minister would have to show that the situation is unexpected in addition to demonstrating that it endangers stocks in a fishery (Daniels *et al.* 2006). However, Daniels *et al.* (2006) state that an emergency in the context of S16 of the MLRA should not be restricted to unexpected or unforeseen circumstances. Instead, it refers to "*a serious situation that requires immediate action due to the endangerment or potential endangerment of ... aquatic life ... in a fishery ...*" (Daniels *et al.* 2006).

### ***The White Paper for Sustainable Coastal Development (WPSCD)***

In 2000, the White Paper for Sustainable Coastal Development in South Africa was published, which outlines a policy for "*sustainable and integrated coastal development in South Africa*" (DEAT 2000). This paper emphasises the importance of the value of the coast and in maintaining productive and diverse coastal ecosystems (Hauck and Sowman 2003). In turn, intact coastal ecosystems provide the basis for social and economic development (Hauck and Sowman 2003).

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<sup>28</sup> S28 (4)

Further, the White Paper promotes a people-centred approach and a management style that involves integration and cooperation across disciplines, sectors and interests thus transcending legislative boundaries (Hauck and Sowman 2003; Witbooi 2006). Further key aspects of the White Paper include: recognizing the value of the coast; the promotion of access to marine resources; support for community involvement in the management of local resources; the promotion of partnerships between the state, private sector and civil society to encourage co-responsibility; adoption of participatory and cooperative management approaches; devolution of responsibility from higher to lower spheres of government; and the need for capacity building to ensure participation of all stakeholders in planning and management (DEAT 2000a; Hauck and Sowman 2003; Witbooi 2006). The White Paper specifically identifies as one of its Principles, the need to recognise the “*interrelationships between coastal users and ecosystems*” (DEAT 2000a).

One of the goals of the White Paper is to “*alleviate coastal poverty through proactive coastal development initiatives that generate sustainable livelihood options*”. Specific objectives to fulfil this goal are the proactive identification and development of opportunities that seek to eliminate coastal poverty and that coastal planning and management efforts shall promote meaningful and sustainable livelihood options (DEAT 2000).

The White Paper goes on to state that “*attention will need to be given to diversifying economic opportunities for poor coastal communities, with a particular focus on reducing reliance on consumptive use of natural resources. Special attention will need to be given to retaining the benefits from coastal development in poor local coastal communities, for example, through beneficiation of natural resources. Coastal planning and management efforts will need to maintain the health, diversity and productivity of coastal ecosystems in order to alleviate coastal poverty*” (DEAT 2000). The White Paper also lists a number of priority issues that need to be addressed by MCM, in consultation with other departments; and further, that programmes need to be developed to address these priority issues. Some priority issues include: diversifying coastal economies and optimizing benefits for local coastal communities; exploring opportunities for development of ports and harbours; and identifying opportunities for mariculture and aquaculture development (DEAT 2000).

The White Paper also holds that those responsible for degradation or damage will need to bear the full cost of rehabilitation and will need to be held accountable for compensating coastal users whose livelihoods are adversely affected or whose benefits are reduced as a result of damaged coastal ecosystems.

### ***NEM: Integrated Coastal Management (ICM) Bill***

This Bill recognises that the State is the public trustee of coastal public property, which includes coastal waters. The State must ensure that “*coastal public property is used, managed, protected, conserved and enhanced in the interests of the whole community*”<sup>29</sup> and must *take whatever reasonable legislative and other measures it considers necessary to conserve and protect coastal public property for the benefit of present and future generations*<sup>30</sup>. Before exercising any power, the person exercising that power must “*consult with interested and affected parties by means of a fair consultative process that enables them to participate effectively in the decision-making process*”<sup>31</sup>.

### ***Small-scale Fisheries Policy***

Although the abalone fishery is still managed as a commercial fishery due to its lucrative nature, it effectively functions as a small-scale fishery. South African small-scale fisheries have been managed in a ‘piecemeal’ manner, and many fishers still do not have legal access to the sea (Masifundise 2007). The development of a new small-scale fisheries policy is currently underway (Masifundise 2007).

During 2007, government released a draft policy on small-scale fisheries for comment. However, the “*Draft Policies for the Allocation and Management of Medium-term Subsistence Fishing Rights and Small-scale Commercial Fishing Rights*” was rejected out of hand by subsistence and small-scale fishers because of the lack of consultation in the formulation process. At a National Summit on Subsistence and Small-scale fisheries in November 2007, a number of principles to guide a new small-scale fisheries policy was agreed upon by Government and other stakeholders

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<sup>29</sup> S12 (a)

<sup>30</sup> S12 (b)

<sup>31</sup> S51 (1) (a)

(for example researchers, NGOs, scientists, and representative from fishing communities). Principles included: the need for equity in the fishing industry; recognition of the principle of adjacency in respect of the sea; respect for the livelihood and indigenous knowledge of the fishers; a participatory co-management approach; an integrated framework which supports and ensures alleviation of poverty, food security and Local Economic Development; and an approach to empowerment which builds capacity (Masifundise 2007b). In addition, there was recognition of the relationship between small-scale fishers and sustainable livelihoods, as well as the need for effective institutional arrangements to promote an integrated approach (Masifundise 2007b). The formulation of the small-scale fisheries policy is currently underway.

### ***Policy for the Allocation of Commercial Fishing Rights in the Abalone Fishery***

The Policy for the Allocation of Commercial Fishing Rights in the Abalone Fishery (The Abalone Policy (DEAT 2003)) intended to introduce a “*new system of co-management*” and to “*effectively address the threat of the illegal harvesting and over catching of abalone*”. The purpose of the policy was to adopt a management regime that would “*result in the substantial reduction in the rate of illegal harvesting*”. Specific objectives were to instill a culture of ownership among rights holders and members of coastal communities, encourage rights holders and members of the community to co-manage the resource together with the Department<sup>32</sup>, to ensure the long term viability of the fishery and to sustain the level of employment in the fishery. It was anticipated that ownership would result in some form of local policing and a substantial reduction in poaching was predicted (Maharaj *et al.* 2006).

Three management options were considered in the Abalone Policy: (i) maintaining the status quo; (ii) closing the commercial and recreational abalone fisheries; and (iii) co-management of the commercial abalone resource. Option (ii) recognised the right that the Minister had to close the commercial fishery in terms of Section 16 of the MLRA by declaring an emergency. The rationale given was that closure would facilitate compliance and enforcement. However, “*militating against (closure) would be the adverse socio-economic consequences such as substantial job losses, potential*

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<sup>32</sup> Department of Environmental Affairs and Tourism: Branch Marine and Coastal Management

*increases in ordinary as well as organised crime and the loss of important markets for South African abalone*” (DEAT 2003).

The option of co-management required that the Department share the responsibility of management of the resource with rights holders. It also recognised that rights holders “*depend on the resource for their livelihoods*”; and that in addition, coastal communities also depend on the industry for their income and prosperity. The Policy recommended splitting the existing zones into smaller units; to facilitate compliance, monitoring and “ownership”. Essentially, a TURF system was introduced, which shifted fisheries management from open access rights to more exclusive access rights allowing harvesting in delineated areas or TURFs (Maharaj *et al.* 2006). Rights holders would effectively have ‘ownership’ over the secondary zone and the community adjacent would play an oversight role, ensuring that only “their” rights holders dive in that zone. Good management would be rewarded with an increased TAC for the zone; however reductions in abalone numbers could result in a decrease or even a zero TAC being declared.

Option (iii) was selected by the Department, and divers and legal entities were allocated 10-year rights. Abalone processing factories were allocated 3-year rights and recreational fishing was suspended (Maharaj *et al.* 2006). The intention of 3-year rights for abalone processing factories was to allow them time to look at the processing of other fish stocks and to prevent unemployment and instability. The Departments intention was “*to allocate commercial rights to as many divers and legal entities as reasonably possible*”.

To be considered for long term rights, divers had to show historical involvement in the harvesting of abalone and that they were reliant on the resource for 75% or more of their annual income. Every applicant had to demonstrate ownership or a right of access to a suitable vessel and the appropriate equipment and gear in order to harvest abalone.

A number of measures were required to strengthen compliance: vessels had to be fitted with a vessel monitoring system (VMS); and there were limits on the number of persons allowed per boat, the number of sea days as well as gear, equipment and

vehicle restrictions. Apart from a non-refundable application fee of R6700, the Department also stated that they would put in place a compliance related levy for funding of monitoring and enforcement initiatives, which the rights holders would be required to pay for (DEAT 2003).

### ***Integrated Development Plan***

Since 1996, local government has been given an expanded mandate and as the government sphere closest to the people, has become the focus for addressing the social and economic needs of local communities (Sowman and Brown 2006). This is achieved through the Integrated Development Plan (IDP). An Integrated Development Plan (IDP) is as a five year strategic development plan for a municipality and serves as the principal planning tool that guides development within its area of jurisdiction. The central aim of an IDP is to provide “*a holistic, integrated and multisectoral, strategic plan to guide the work of the municipality*” (Sowman and Brown 2006). The IDP is legislated by the Municipal Systems Act 2000 (MSA) and supersedes all other plans that guide development at a local level. Thus, as the closest government sphere to the people, the local municipality and its IDP play an important role in the livelihoods of fishers.

The Overstrand Local Municipalities’ IDP for the 2008-2009 period recognises tourism as a major driver for the local economy; and particularly for Kleinmond. Further, the Overstrand is a leader in the field of commercial abalone farming; and the IDP recognises the potential to expand aquaculture developments along the coast. The IDP recognises that “*the rapid decline in conventional fishing places emphasis on this (aquaculture) alternative for the traditional fishing community*”.

### **3.4 Institutional Overview**

In South Africa, a number of different government departments have jurisdiction over the coast and its inhabitants, and most national and provincial departments have a role to play (Glavovic *et al.* 2002). However, this range of governance actors has led to confusion and overlap in terms of roles, responsibilities and mandates (Glavovic *et al.*

2002). This often results in poor management of resources and has negative implications for the poor (Glavovic *et al.* 2002).

Institutional arrangements for coastal and fisheries resources are complex and unclear; which often leads to ineffective administration on the ground (Hauck and Sowman 2003). Firstly, the Constitution recognises marine resources as being of 'exclusive national competence'; and environment, tourism and nature conservation (excluding marine resources) as 'concurrent national and provincial competence' (Hauck and Sowman 2003).

The Chief Directorate of MCM, within the National DEAT is the government authority primarily responsible for the management of marine resources in South Africa. National DEAT has considerable power over marine resource management and its responsibilities include the setting of resource control measures such as TACs, determining access rights and promulgating regulations in terms of certain resources (Hauck and Sowman 2003).

The institutional structure of MCM incorporates the following Chief Directorates, Directorates and sub-directorates (those not included are those related to financial and administrative support): which all have a role to play in small-scale fisheries management

**1. Chief Directorate: Research, Antarctica and Islands:** Directorate Research Support, Directorate Antarctica and Islands, Directorate Biodiversity and Ecosystem Research; Directorate Resources Research; Directorate Ecosystem Utilisation and Conservation

- i.* This Deputy Directorate is responsible for monitoring the resource and determining the annual Total Allowable Catch (TAC) for the commercial abalone fishery. They do this by means of catch return/statistics forms, sampling of commercial catch, fishery independent abalone surveys<sup>33</sup> (FIAS) and monitoring of illegal catch.

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<sup>33</sup> Fishery independent surveys consist of surveying<sup>33</sup> and sampling the various Zones (Zones A-D; Robben Island and Dyer Island)



2. **Chief Directorate Monitoring Control and Surveillance:** Directorate Compliance, Directorate Environmental Protection Vessels, Directorate Surveillance Investigative Unit
3. **Chief Directorate Marine and Coastal Resource Management:** Directorate of Offshore Management and Directorate of Inshore Management (Sub-directorate Subsistence and Small Scale Fisheries)
4. **Chief Directorate Integrated Coastal Management:** Directorate Socio-Economic Development (Sub-directorates: Sustainable Coastal Livelihoods); Directorate Integrated Coastal Management (EEU 2008)
  - i. The Directorate of Resource Management is responsible for the management of the wild harvesting of marine resources. Resource Management makes recommendations on quota allocations to the Minister on the basis of the TAC recommended by 'Research' i.e. Resource Management decides how to divide up the TAC amongst rights holders in a particular industry and then once approved, they implement and issue permits

Other aspects of coastal management are handled by a number of different national and provincial departments; whilst local government and traditional authorities also have a role to play in coastal and resource management (Hauck and Sowman 2003). Provincial Planning and Development Acts govern development of coastal land; but decisions about land development are usually made at the local level (Hauck and Sowman 2003). Developments on the seaward side of the high water mark, e.g. harbours, are the responsibility of departments such as Transport and Public Works (Hauck and Sowman 2003). Furthermore, management of fisheries resources and other economic activity affecting the coast are handled separately (Hauck and Sowman 2003). Within MCM there is little communication between and within the divisions responsible for coastal and marine resource management (Hauck and Sowman 2003). This was evident during interviews with MCM officials; as they had little knowledge about the responsibilities of other directorates within MCM.

Whilst MCM is based in Cape Town, resource users are situated at various locations along the coast. Fishery Control Officers are present in many coastal towns, but are not able to deal with all aspect for compliance as they are under resourced. MCM

needs to have satellite stations in key areas and a “flat” structure that will allow MCM to reach resource users. Each province ideally needs their own sub-directorate; with a sub-directorate in Cape Town that links those based in the provinces (Resource Management Official pers comm. 2008). According to van Sittert *et al.* (2006), “*lack of integration across the directorates within MCM and other sectoral government departments charged with coastal management and economic development represents one of the greatest challenges to effective fisheries governance in South Africa*”.

Since 1994, many responsibilities have been devolved to local government; including broader environmental responsibilities – such as environmental stewardship and the promotion of social and economic development (Hauck and Sowman 2003). Further, in terms of the Municipal Systems Act (2000) local authorities must produce an Integrated Development Plan (IDP). However, the integration of coastal issues into the IDPs “*presents both a significant opportunity and challenge to the implementation of the Coastal White Paper*” (Hauck and Sowman 2003, p53). Hauck and Sowman (2003) state that capacity building and skills development in the field of Integrated Coastal Management are required at government level to ensure that the policies in the Coastal White Paper are implemented.

#### **4. Overview of the Abalone Fishery and Case Study**

##### **4.1 History of abalone harvesting and management in South Africa**

The abalone fishery in South Africa began in Gansbaai in 1949 and the commercial industry is based on the species *Haliotis midae* (Hauck 1999; Hauck and Sweijd 1999). Abalone is most abundant along the 580km of coastline between Cape Columbine and Quoin Point and occurs mostly in waters less than 5 meters deep (Envirofish Africa 2000; DEAT 2006; Maharaj *et al.* 2006). *H. midae* is slow-growing and takes about 7 years to attain sexual maturity, and 8-9 years to reach minimum legal size for harvesting<sup>34</sup> (Tarr 1995 in Plagányi and Butterworth 2008; Maharaj *et al.* 2006).

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<sup>34</sup> 114 mm shell breadth (Plagányi and Butterworth 2008)

The industry is focused on the south west coast, between Robben Island and Quoin Point (See Figure 3) (Hauck 1999). Due to the occurrence of this species in shallow water and its sedentary nature, it is relatively easy to access and exploit (Hauck 1999; Hauck and Sweijd 1999; Branch and Clark 2006). Further, although the abalone fishery is among the smallest in South Africa, it is the most lucrative in terms of unit value (Hauck and Sweijd 1999).

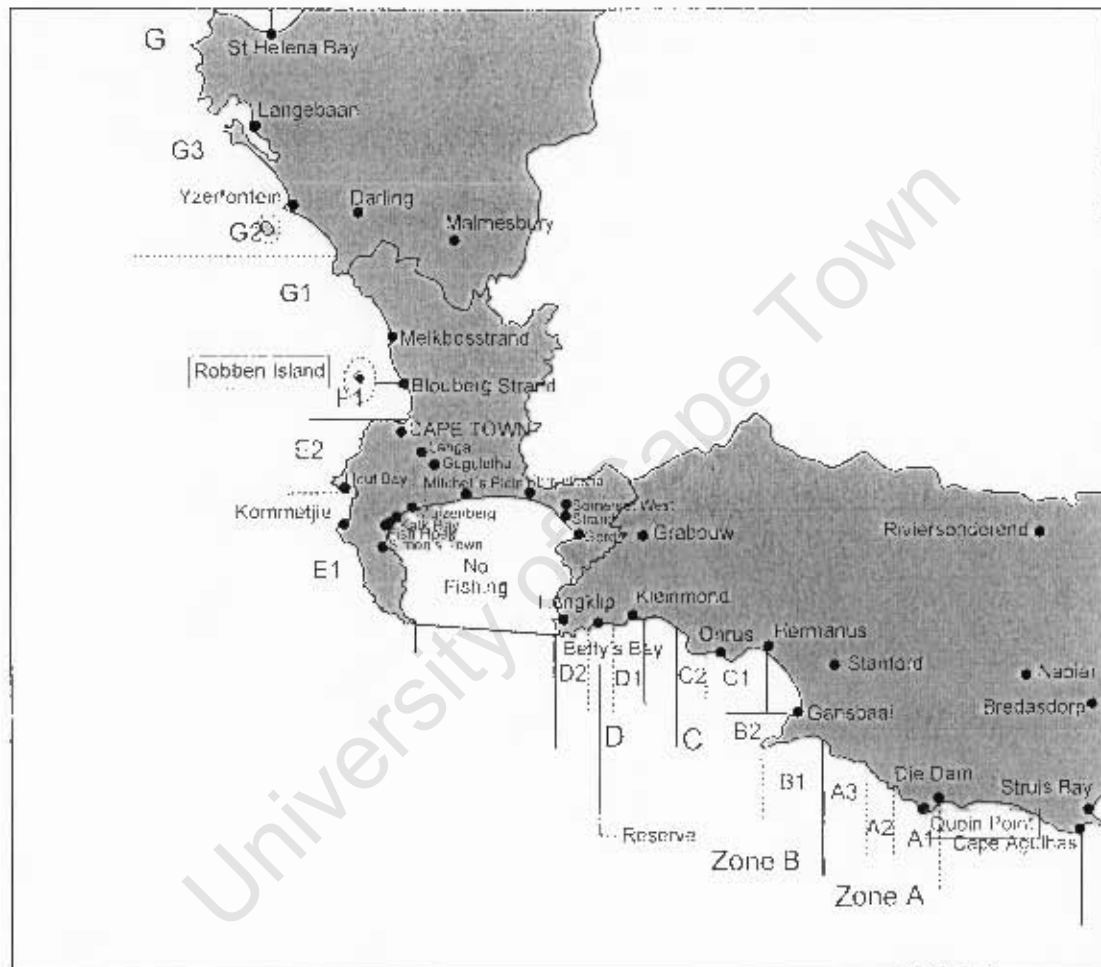


Figure 3: The abalone fishery is focused between Robben Island and Quoin Point. The figure also shows abalone fishing Zones A to G including TURF sub-zones.

Licenses to harvest abalone commercially became freely available in 1954, and by 1964 the number of licensed divers had increased to 104 (Envirofish Africa 2000). Due to stricter enforcement of license conditions applicable to divers, numbers were reduced to 68 by 1970 and to 47 by 1989 (Envirofish Africa 2000). Prior to 1970, no harvesting limit for abalone was in place and there were few management controls (Hauck and Sweijd 1999; Tarr 1992 in Plagányi and Butterworth 2008). In fact, in

1965, harvesting reached a peak annual take of 2 800 tonnes (Plagányi and Butterworth 2008). Due to declining catches, the first production quota was set in 1968 at 386 tonnes of meat mass, with reductions during the next 15 years due to continued concerns relating to declining catch rates (Tarr 1992 in Plagányi and Butterworth 2008; Envirofish Africa 2000). However, annual landings continued to decrease until they stabilised in the 1980s at around 600 tonnes per annum (Envirofish Africa 2000; DEAT 2006; Plagányi and Butterworth 2008).

In 1986 an overall annual TAC was formally implemented as the sum of individual Total Allowable Catches (TACs) for each of the seven zones (A-G) (Plagányi and Butterworth 2008). Kleinmond falls within Zone D.

Up until 1998, the fishery consisted of two components – 50 licensed divers who ‘owned’ the right to harvest and deliver a fixed percentage of the TAC to a processing company and six quota holders who owned the processing and marketing rights to a percentage of the TAC (Envirofish Africa 2000). The commercial fishery was regulated by the determination of an annual TAC, with the historically most exploited zones being A, B, C and D (See Figure 3) (Hauck and Sweijid 1999). In addition there was a recreational fishery, which was regulated by means of a permit, a closed season and a bag limit per day, but this fishery was suspended in 2003 (Hauck 1999; Maharaj *et al.* 2006; ASWG 2007).

The MLRA initiated major changes in the abalone fishery. Whereas previously the TAC was only allocated to the commercial sector, the subsistence and recreational sectors were also now included (Envirofish Africa 2000). Subsistence fishers were recognised for the first time in the MLRA, and the first subsistence abalone permits were allocated in March 1998 for 3 years (Hauck 1999; EEU 2008). In terms of the subsistence permit, fishers could dive abalone for personal consumption and sell their excess catch (Hauck 1999). This newly created category was also referred to as the “small-scale commercial fishery” (Envirofish Africa 2000). In the 1998/1999 season, 236 permits were allocated to fish a quota of 160 tonnes (Envirofish Africa 2000). In 1999/2000, 53 applicants were granted permits to fish 45 tonnes of abalone on a small-scale commercial basis (Envirofish Africa 2000). Interestingly, more than half of the successful applicants for subsistence permits were employed in the commercial fishery as divers or assistant divers or were shareholders of rights-holding companies

or owned boats that held abalone fishing permits (Envirofish Africa 2000). This subsistence fishery eventually transformed into the small-scale commercial fishery.

In addition to the commercial, subsistence and recreational sectors, there was also an illegal sector, which harvested abalone without permits in violation of the Sea Fisheries Act of 1988 and later in contravention of the MLRA of 1998 (Hauck 1999; Hauck and Sweijd 1999). However, this group was largely composed of individuals who felt they had a right to harvest the resource, yet were unfairly excluded by the rights allocation process. Thus, “protest fishing” in opposition to the inequitable allocation of rights soon developed into large-scale criminal operations, driven by the market in the Far East (van Sittert *et al.* 2006).

Heavy poaching started in the early 1990s, which subsequently led to a reduction in the TAC for the commercial fishery (Plagányi and Butterworth 2008). For the 1996/1997 season, only 550 tonnes was allocated – indicating that there was a problem (Hauck 1999; Hauck and Sweijd 1999). According to Hauck (1999) the cause for this reduction was due to “*over-exploitation, biological uncertainty and political pressure*” (Hauck and Sweijd 1999). Some areas (Zone C) suffered up to 90% reductions in their TAC (Hauck and Sweijd 1999).

The Directorate of Resource Management is responsible for the management of the wild harvesting of marine resources. Resource Management makes recommendations on quota allocations to the Minister on the basis of the TAC recommended by ‘Research’ i.e. Resource Management decides how to divide up the TAC amongst rights holders in a particular industry and then once approved, they implement and issue permits. Lack of capacity within Resource Management is a major obstacle as it prevents officials from getting “on the ground” and interacting with resource users (Resource Management Official pers comm. 2008). Management measures that were historically applied and enforced until the recent closure were based on effort-limitation and included minimum legal size restriction<sup>35</sup>, closed season, gear restrictions, slipway controls, zonal partitioning, TACs and marine protected areas (Hauck and Sweijd 1999; Plagányi and Butterworth 2008). Decision rules, which acted as guidelines for the management of the abalone resource, were developed in

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<sup>35</sup> 10.16cm shell breadth (Hauck and Sweijd 1999)

the mid 1990s (Plagányi and Butterworth 2008). Decision Rules include the following: (i) each zonal TAC may not be increased or decreased for 2 years from the last change, unless a major change of resource status becomes apparent; (ii) TACs may not be increased or decreased by more than 10% unless special circumstances arise e.g. boundary shifts; and (iii) if (i) applies, an increase or decrease of a zonal TAC may only occur if no indicators (cpue, % catch in first 5mm and mean size) are in conflict (ASWG 2007).

The Abalone Scientific Working Group (ASWG) is responsible for compiling a document recommending a global TAC for the resource for a prescribed season on a zone-by-zone basis. The ASWG consists of scientists employed by the department, UCT researchers and observers. The ASWG has a number of meetings throughout the year and the Chairman signs off the TAC recommendation. This recommendation is then made to the Chief Director: Research, Antarctica and Islands. The Chief Director then considers the recommendation and in turn makes recommendations to the Chief Director: Resource Management. The recommendations of the CD: Research, Antarctica and Islands do not have to concur with that of the ASWG. The CD: Resource Management then makes his recommendation to the Deputy Director-General of MCM. The Deputy D-G then takes account of the recommendation of the two CDs and then makes his recommendation to the D-G of the Department, who then considers the recommendations and makes a recommendation to the Minister, who is the final decision maker. At each stage of the decision making process, each person has access to all the relevant documentation and recommendations and consults widely. None of the recommendation made in the chain are binding.

From 1998 – 2003 the industry was “*characterized by a lack of security attached to successful quota applications such that long-term interests were forfeited in favor of lucrative short-term gains*” (Plagányi and Butterworth 2008). As a result, few quota holders “invested” in the resource and conflict emerged between stakeholders (Plagányi and Butterworth 2008). Further TAC reductions continued over the years. Table 1 indicates changes to the TAC over the period 1996 through 2008. Reductions in TAC are usually phased in over a 2-3 year period in order to maintain industry stability (Plagányi and Butterworth 2008).

**Table 1: The TAC (in tonnes) for the abalone fishery from 1996 – 2008 (Zones A-G)**

1996/1997	550 <sup>1</sup>
1997/1998	530 <sup>1</sup>
1998/1999	515 <sup>1</sup>
1999/2000	500 <sup>2</sup>
2000/2001	371 <sup>2</sup>
2001/2002	432 <sup>2</sup>
2002/2003	430 <sup>2</sup>
2003/2004	282 <sup>2</sup>
2004/2005	237 <sup>3</sup>
2005/2006	223 <sup>4</sup>
2006/2007	125 <sup>5</sup>
2007/2008	Zero/ fishery closed

<sup>1</sup> EnvirofishAfrica (2000); <sup>2</sup> Plagányi and Butterworth (2008); <sup>3</sup> Plagányi and Mackenzie 2005; <sup>4</sup> Hauck (2006), Maharaj *et al.* 2006; <sup>5</sup> ASWG (2007).

Medium-term commercial abalone rights were in place during the 2001-2003 abalone fishing seasons. In 2003, a new abalone policy was implemented that outlined a co-management approach for the abalone fishery, which encouraged resource users to participate in management activities. Long-term rights were allocated to abalone divers for a period of 10 years and a TURF system was introduced as this system has shown some success in other countries (Castilla and Defeo 2001). TURF systems give rights to a specific group (of fishers) to engage in fishing within a specific geographical location; and consequently limit the rights of others (Hauck 2006; Sunde 2003). The concept of the system is to create 'ownership' over the resource, thus increasing compliance and enhancing management (DEAT 2003; Hauck 2006; ASWG 2007; Research Officials pers comm. 2008). The expectation was that the TURF system would result in rights holders taking greater responsibility for resource management and informing compliance agencies of poaching activities within their TURF (ASWG 2007). Zones A-G were subdivided into 2-3 subzones or TURFs and where possible, fishers were allocated fishing rights within or adjacent to the sub-zone nearest to their place of residence (ASWG 2007).

In addition to the implementation of a TURF based system, the Abalone Policy encouraged fishers to invest in the industry, by requiring that applicants invest in “*suitable vessels, gear and other applicable equipment*” in order to qualify. Abalone processing factories were phased out of the industry over a period of three years (2004-2007) and are no longer allocated a quota for abalone, but instead rights holders could sell their abalone to the abalone processing factory of their choice. Further, abalone rights holders could be involved in marketing in conjunction with the factory i.e. they could have a say in what form most of their catch would be exported (e.g. 30% live and 70% canned). In this way they had more control (i.e. increased ownership and input) over the final product (Research Officials pers comm. 2008).

The allocation of long term rights to abalone fishers was in line with international thinking that the most successful management strategies are likely to be those that involve the allocation of long-term rights (Stephenson and Lane 1995 in Plagányi and Butterworth 2008). The introduction of a co-management approach was also seen as a mechanism for instilling a sense of custodianship over the resource. The overexploitation of many Latin American shellfish stocks has been attributed to a lack of co-management practices (Castilla and Defeo 2001).

Prior to the closure of the fishery, the TAC for the abalone fishery was allocated to 262 divers and 40 diver entities and it is estimated that approximately 792 crew members were employed by these rights holders (Hauck 2006; Bozalek 2008). In addition to divers and crew, other stakeholders include: abalone buyers, processors, the broader community, the management authority, local government and illegal fishers (Hauck 2006).

### ***The rationale for closure of fishery and the diving ban***

The ‘official’ rationale quoted in press releases was that the stock had declined to such an extent that closure of the fishery was necessary to allow stocks to recover. According to Research officials at MCM the rationale for the closure of the fishery was twofold. First, it was a management approach to deal with poaching, as the closure would facilitate compliance initiatives and second to allow for resource recovery as a result of a decline in poaching (Research Officials pers comm. 2008).



Surveys in South Africa have shown that stocking densities are within the minimum density<sup>36</sup> needed to breed successfully – and in three of the zones the stocking density is lower. Therefore immediate closure was required to protect the remaining resource.

Although gazetted on 26 October 2007, the abalone fishery was closed on 01 February 2008. On the same day, a diving ban came into effect. Areas affected by the diving ban are: Bird Island, Quoin Point to Danger Point; Dyer Island; Venus Pool to Cape Point and from Cape Point to Olifantsbospunt; and Robben Island (Government Notice No. R. 62 2008). See Figure 4.

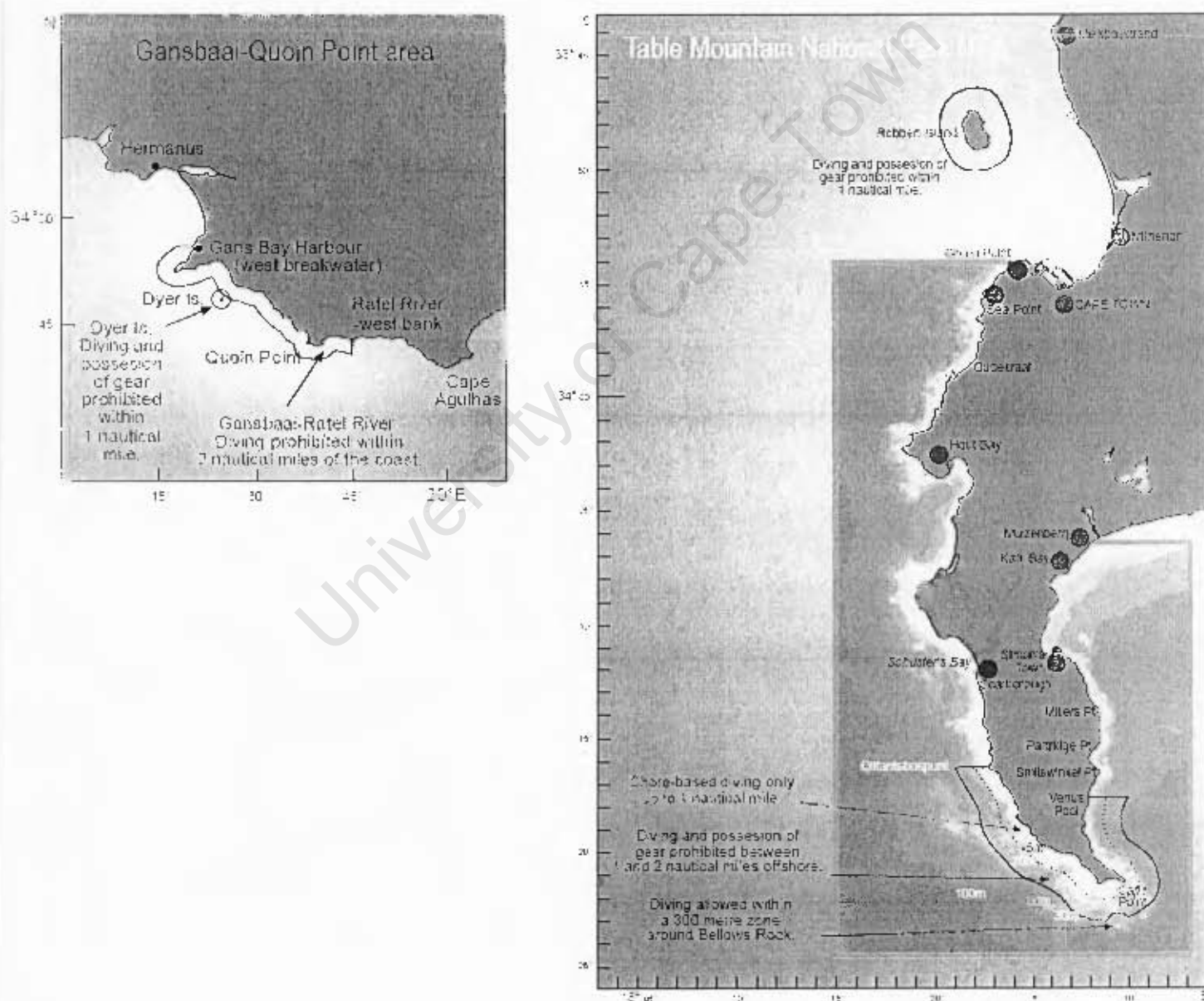


Figure 4: Areas affected by the dive ban are indicated in red.

<sup>36</sup> Research from New Zealand has shown that abalone need to be 1-2 meters apart to breed successfully; and a minimum density of between 0.15-0.33 abalone/ m<sup>2</sup>.

The rationale for the selection of areas was based on “key areas where stock was likely to recover” (ICM Official pers comm. 2008). Thus the diving ban does not apply to those areas where recruitment of abalone is failing due to poaching activities or WCRL predation (ICM Official pers comm. 2008). These areas are considered to have little or no guarantee of recovery as the ecosystems have potentially changed as a result of the influx of WCRL and therefore a decrease in harvesting alone will not guarantee an increase in wild stock (ICM Official pers comm. 2008). Thus the dive ban has been focused on those areas where the abalone is expected to recover, presumably as a result of an expected decrease in harvesting.

In addition, areas covered by the diving ban have been prioritised for concerted enforcement efforts and focus areas are Zone A and B where the stock is likely to recover if the poaching can be stopped (MCS Official pers comm. 2008). Thus any reports of poaching activity in this area will be a priority for enforcement officials. This could explain why resource users in Kleinmond rarely see any response to their reports of poaching activities in Zone D.

The diving ban also makes it considerably easier for enforcement officials to protect the resource, as they can now apprehend persons in possession of diving equipment in prohibited areas, and thus do not have to catch the poacher in possession of the abalone. Further, Augustyn in Bozalek (2008) states that the practical difficulties in distinguishing between “out and out poaching” and illegal harvesting by rights holders are eliminated due to the suspension of harvesting. Thus it will have positive implications for compliance and enforcement.

A UCT Researcher (pers comm. 2008) however states that the only defensible argument for the closure of the fishery is the inability of MCM to effectively control poaching, and thus the need to prevent people from entering the water. The researcher believes the argument about the status of the resource is invalid (UCT Researcher pers comm. 2008). The Researcher further states that immediate closure versus closure over a phasing out period of 5 years would have made a negligible difference to the resource. The above implies that there is little agreement amongst government scientists, managers and other researchers, with regards to the rationale that was given for closure of the fishery.

## 4.2 Current management challenges

The struggle to sustainably manage the abalone fishery is not unique to South Africa (Hauck 2006). The illegal trade in abalone has affected other abalone fisheries around the world including Australia, Canada, California, Mexico and Chile (Hauck 2006). Management of the abalone fishery is faced with two main challenges. First concerns the extent of illegal fishing (or poaching) and second, the ecosystem changes because of the southward migration of the WCRL (Hauck and Sweijd 1999; ASWG 2007; Plagányi and Butterworth 2008; Research Officials 2 pers comm. 2008).

The demand for abalone in oriental countries has led to the development of highly organised Chinese Mafia syndicates in South Africa who purchase poached abalone and smuggle it out of the country (Hauck 1999b). The demand is driven by a belief that abalone increases fertility, delays senility, has aphrodisiac properties. In addition it is used in various ceremonial events (Hauck and Sweijd 1999; Plagányi and Butterworth 2008).

The combined Zone A-D model-predicted<sup>37</sup> poaching for 2003 was estimated at 933 tonnes, which is more than 7 times the commercial TAC for these zones (Plagányi and Butterworth 2008). Further, it is assumed that only 36% of all poached abalone is confiscated (Plagányi and Butterworth 2008). In addition, the demand and increased price for abalone have been fueled by drastic declines in abalone populations elsewhere, such as the black abalone *Haliotis cracherodii* fishery off California (Plagányi and Butterworth 2008). Also in California, over exploitation has resulted in the possible extinction of the species *Haliotis sorenseni* (Hauck and Sweijd 1999). Due to its large size and high quality flesh, the South African abalone is one of the most sought after species (Plagányi and Butterworth 2008).

The second threat to the abalone resource is the southward migration of the west coast rock lobster (WCRL), *Jasus lalandii*, into Zones C and D (DEAT 2006; Plagányi and

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<sup>37</sup> A spatial- and age-structured production model has provided the basis for management advice for the abalone resource over recent years by projecting abundance trends under alternative future catch levels. The model estimates the reduction in juvenile abalone survival due to the ecosystem change and estimates the illegal take using a novel fisheries index – confiscations per unit of policing effort (Plagányi and Butterworth 2008).

Butterworth 2008; Research Officials pers comm. 2008). Biological interactions between WCRL, juvenile abalone and sea urchins have resulted in a decrease in abalone recruitment (Tarr *et al.* 1996 in Hauck and Hector 2003; DEAT 2006; Maharaj *et al.* 2006). WCRL prey on and significantly reduce sea urchin populations (*Parechinus angulosus*) on which juvenile abalone depend for shelter (Plagányi and Butterworth 2008; Branch and Clark 2006). The reasons for this ecosystem change are poorly understood, and it may be linked to regional changes in sea temperature or be part of long-term cyclical change (Maharaj *et al.* 2006).

To address illegal resource exploitation, South Africa has historically relied on law enforcement and crime control (Hauck and Sweijd 1999). This still seems to be the case today and challenges to management include the de-legitimization of regulations as many feel resource allocation has not been fair, mistrust and the alleged corruption of authorities (e.g. turning a blind eye or receiving financial payments), conflict between resource users, the lucrative nature of the resource which encourages short term financial gain over long-term interests, and the involvement of syndicates (shifting the problem from resource management to organised crime).

Despite the challenges mentioned above, there are concerns that some scientists have been ‘crying wolf’ for many years with regard to the status of the resource (Plagányi and Butterworth 2008). The model used to assess the abalone stock (and determine the TAC) is rigorous and “*integrates all available information in an objective manner*” (Plagányi and Butterworth 2008). A UCT Researcher (pers comm. 2008) states that despite the apparent robustness of the model some scientists have criticised it because it does not indicate that the resource is “sufficiently depleted”. The model has suggested for many years now that the resource is not as threatened as many claim, even though their assertions are often subjective and not supported by any concrete evidence (UCT Researcher pers comm. 2008). By looking retrospectively at the observed CPUE data, it indicates that the resource could not have been more depleted than indicated by the model (Plagányi and Butterworth 2008).

Thus despite challenges faced ‘on the ground’, it seems that researchers and scientists are also in conflict with regards to the perceived or actual status of the resource. Whilst Plagányi and Butterworth (2008) support the need for a precautionary

approach in making management decisions, they also highlight the need for caution in 'crying wolf' regarding the state of the abalone resource. "Crying wolf" in this case may result in scientific credibility being questioned due to unsubstantiated claims by scientists, as well as resulting in concerned fishers putting added pressure on the resource "while they still can" (Plagányi and Butterworth 2008). They caution that *"where there is cause for concern, it is sometimes better not to overstate the case"* as it creates a similar setting to the "tragedy of the commons" - where there is a rush to take as much as possible before closure or there is nothing left (Plagányi and Butterworth 2008).

In addition to the TURF system, the new management strategy included Coastal Co-Management Meetings with rights holders from each secondary zone or TURF (DEAT 2006). TURF Representatives<sup>38</sup> met with the Department to address issues in the Resource Management Working Groups and attended the Abalone Scientific Working Group Meetings, where the annual TAC recommendations are made (DEAT 2006). Issues discussed at the Co-Management Working Group included forms of punishment for rights holders that exceeded their allocation, agreeing on times for diving, as well as general house-rules and day to day management issues. In addition, when the TAC was being determined, a meeting would be held with the 'TURF Reps' and MCM would respond to queries or complaints. In general, Co-Management working group meetings were held 2-3 times a year for the first 2 or 3 years of the Abalone Policy. However, Management Working groups were infrequent and TURF Representatives usually tried to raise management issues at Scientific Working Group meetings because they had no other medium (UCT Researcher pers. comm. 2008). Consequently, these issues were often not addressed, as researchers and scientists generally tend not to handle issues related to management (UCT Researcher pers. comm. 2008).

#### **4.2.1 Failure of the TURF System**

The TURF system which was implemented with the advent of the Abalone Policy, failed to increase a sense of ownership over the resource. Failure of the TURF system

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<sup>38</sup> Each of the zones has a 'TURF Representative' which would represent the interests of rights holders in that Zone in meetings with MCM.

can be attributed to four main factors. Firstly, the high value of abalone is an incentive to harvest illegally as “it is worth the risk” and outweighs the possible sanctions (DEAT 2006; Maharaj *et al.* 2006). Secondly, the declining nature of the resource and the possibility that long-term rights may be withdrawn eliminate the incentive to co-manage and protect the resource (DEAT 2006; Maharaj *et al.* 2006). Third, some zones were shared amongst rights holders due to the uneven distribution of the resource and this non-exclusivity has led to conflict and removed the sense of ownership (DEAT 2006; Hauck 2006; Maharaj *et al.* 2006). Lastly, many divers were excluded from the new management system and many have persisted or resorted to poaching (DEAT 2006; Maharaj *et al.* 2006).

In addition, Hauck (2006) maintains that the ineffective implementation of the Abalone Policy cannot only be attributed to the declining resource, but also to the absence of a jointly agreed strategy to implement the TURF system and a lack of budget and capacity within MCM to establish co-management (Hauck 2006). One MCM official admitted, that due to lack of communication between MCM and fishers, there was little capacity building or follow up in relation to the TURF system. Further, there was not a shared definition of what “co-management” entailed. For government, it means consultation with fishers and the consideration of what they consider ‘useful inputs’. For fishers, it means being integrally involved in management and decision-making. However, government is reluctant to give resource users this kind of responsibility. Ideally, government would need to decide in consultation with fishers what allocation system to implement and the amount that can be harvested; as well as clarification of responsibilities (Research Official pers comm. 2008).

#### **4.3 Enforcement Initiatives**

Numerous enforcement initiatives aimed at curbing the poaching of abalone have been implemented in the past, particularly in the Overberg area. This section briefly discusses Operation Neptune, MARINES and SeaWatch for the purposes of providing a broader understanding of what has been attempted in the past to address illegal activities and why such initiatives have been unsuccessful.

## *Operation Neptune*

Operation Neptune originated from an SAPS initiative that aimed to address community unrest in Hawston. When it became clear that many of the issues were as a result of the abalone resource, a cooperative policing venture was entered into between the South African Police Service (SAPS) and MCM (Hauck and Hector 2000; Plagányi and Butterworth 2008). At the outset, this venture had the support of coastal communities and local organizations (Hauck and Hector 2000). Operation Neptune was short-lived, and lasted only about 8 months (February – October 1999) (Hauck and Hector 2000).

The main objective was to curtail poaching along the southwest coast, from Quoin Point to Cape Hangklip (Hauck and Hector 2000) (See Figures 3 and 4). Additional assistance was provided by the army, navy and locally based organizations, such as SeaWatch and municipal law enforcement officials (Hauck and Hector 2000).

MCM provided personnel and equipment, and initially funded costs such as cell phones and accommodation, but officers were not paid a salary by MCM and the main operating expenses were covered by the SAPS (Hauck and Hector 2000). The SAPS would then send groups of officers to the coast for a few weeks at a time to assist with monitoring and enforcement. This system of rotation was implemented to prevent officers from being known by poachers and thus being open to bribery and corruption (Hauck and Hector 2000).

However, Operation Neptune came to an end when the SAPS withdrew as marine resource protection was no longer a priority and they were of the opinion that MCM should rather make use of local police stations to assist with enforcement. However, local police stations lacked human capacity and resources and marine resource protection was not a top priority. Hauck and Hector (2000) state the reason for termination was due to a lack of funding. Operation Neptune also lost the public's confidence and support due to rumours of corruption (Russell 2007). Russell (2007) further states that Operation Neptune was "*incorrectly staffed with...policemen on stress leave, who knew nothing about the sea, nothing about the resource they were*

*supposed to be protecting and considered themselves to be on an extended holiday at the coast” (Russell 2007 p46-47).*

Operation Neptune had a number of positive impacts, such as increased coordination between policing agents, an increased feeling of security in local communities and its role as a deterrent to poaching (Hauck and Hector 2000). However, it was too short lived and resulted in an increased black market price for abalone and the movement of poaching activities to new areas (Hauck and Hector 2000; Plagányi and Butterworth 2008). MCM officials have mixed opinion’s regarding the extent to which Operation Neptune was successful in curbing poaching. Additional problems identified include the bribery of police officers by poachers, a lack of expertise and training on the side of police officers to catch poachers and a lack of funding (Hauck and Hector 2000).

#### ***Management Action for Resources of Inshore and Nearshore Environments (MARINES)***

With the disbandment of Operation Neptune, another initiative started in the Overberg area known as the MARINES. The MARINES was initiated by the Overstrand Municipality who approached MCM to fund a compliance and enforcement body in its area (Hauck and Kroese 2006). In 2003, 8 people were appointed to undertake patrols from Pringle Bay to Botriver, and a budget of R900 000 was made available (Hauck and Kroese 2006). The MARINES are considered to have been highly successful in curbing poaching and it was proposed to expand the group to 45 individuals in 2005, with a budget of R4.5 million (Hauck and Kroese 2006). With this, their area of jurisdiction also increased to Buffeljags. Funding was initially provided by MCM and the Overstrand Municipality.

The MARINES had a number of duties, including compliance, patrols, rapid response, slip way control, awareness-raising and coordination with other organisations, such as SeaWatch and the SAPS (Hauck and Kroese 2006).

Despite their perceived success, reasons for the disbandment of the MARINES were threefold. Firstly, they became autonomous and were considered to be “taking over” enforcement functions and put MCM in embarrassing situations and made press



statements that criticised MCM. Secondly, there were problems regarding the corruption of officials. Lastly, a new Chief Director in the Monitoring, Compliance and Surveillance Directorate (MCS) as well as a new Chief Financial Officer were appointed who decided that MCM could do the job better and cheaper themselves (MCS Official pers comm. 2008).

MCM then took over the MARINES and incorporated their staff as officials on contract and about 46 officials were absorbed into MCM (Augustyn 2008b). They are no longer called MARINES but are now known as Fishery Control Officers (FCOs) and are appointed under the MLRA. This contract was renewed on the 1st of January 2008 for a period of 2 years (albeit only 40 contracts) and MCM are currently in the process of appointing another 30 FCOs on a one-year contract to ensure full time coverage in focus areas and “keep the pressure on”.

### ***SeaWatch***

SeaWatch is a non governmental organisation which operates on a similar premise to ‘neighbourhood watch’. SeaWatch consists of local community members who are concerned about the state of marine resources in the area. They patrol the coast for any poaching activity and work together with local law enforcement to apprehend poachers. They assist in the gathering of intelligence and supply additional capacity to the Fishery Control Officers in the area.

### ***Green Court***

The Green Court or Environmental Court was established in February 2003 in Hermanus and was a collaboration between MCM and the National Prosecuting Authority (NPA) and was created mainly to try abalone-related offences (Hauck and Kroese 2006). The court was justified on the grounds that abalone cases had a low priority in the justice system and that sentences were lenient and the conviction rate low (Hauck and Kroese 2006). The Court had a conviction rate of 75% (compared to the usual 10%) (Hauck and Kroese 2006).

According to Research Officials (pers comm. 2008) the Green Court did not manage to significantly reduce poaching activities; despite the high conviction rate, increased fines and jail sentences. The Green Court was closed down by the Department of Justice in March 2006 (Augustyn 2008b) on the basis that any prosecutor should be able to try any case and thus did away with the need for specialised courts. Instead, the Department has appointed specialist environmental prosecutors in the MCS Chief Directorate, specialising in and dedicated to MLRA prosecutions, which is seconded to the NPA (DEAT 2006; Augustyn 2008b).

#### **4.4 Challenges to enforcement**

As a result of the increase in the number of access rights to fisheries, more people are operating along the South Africa coast and thus more people need to be managed and monitored (Hauck 2008). Because of this increase in formal resource users, and the need to minimise over-exploitation of stocks, MCM has felt it necessary to promote fisheries compliance through an increased investment in law enforcement (Hauck and Kroese 2006; Hauck 2008).

However, many traditional fishers are still excluded from legally harvesting resources, yet they continue to fish “because they believe it is their right to do so” (Hauck and Kroese 2006; Hauck 2008). Informal (or illegal as it is referred to in this report) fishing or ‘poaching’ will continue as many traditional fishers do not consider the management and rights allocation system to be legitimate (Hauck 2008).

Within MCM, the Chief Directorate Monitoring, Control and Surveillance are responsible for enforcement and compliance within the abalone fishery. Their abalone protection strategy is to keep abalone in the sea and thus alive. However, in order to achieve this they need to be proactive, have a full time presence, and require the necessary resources to gather intelligence on poaching syndicates (MCS Official pers comm. 2008).

MCM officials identified numerous challenges that hamper the effectiveness of enforcement initiatives during the interview process. Firstly, a lack of human capacity and resources, specifically technical equipment required to work at night hamper

enforcement activities. Further, there are 21 other commercial fisheries, which also need MCSs attention, and in the “greater scheme” the economic value of abalone is relatively low. Nearly all linefish species are threatened and thus monitoring of this industry is vitally important.

Secondly, some MCM officials are of the opinion that MCS is not in a position to tackle organised crime and their role is ideally to “monitor compliance” and that the illegal fishery or poaching falls under ‘crime’, which is the responsibility of the SAPS. MCM compliance officers are trained to deal with “normal” illegal activities within the legal fishery such as landings, size, and fishing areas. Others feel that partnerships with the South African Police Force (SAPS) and South African National Defence Force (SANDF) are essential in curbing poaching. Past enforcement initiatives came to an end because abalone poaching was not a high priority for other government departments. Further, the illegal harvesting of abalone is listed as a schedule B offence in terms of the Criminal Procedure Act 51 of 1977 (DEAT 2006). MCS officials suggest that it should be reclassified as a schedule 'A' offence, so as to ensure appropriate priority of this offence (DEAT 2006). In addition, the Scorpions had a unit dedicated to abalone cases and their disbandment has further impacted on fighting organised crime.

Third, a lack of trust between MCS and fishers has resulted in MCS questioning the intentions of fishers who are willing to assist – as the poachers themselves often feed through false information. There are also problems relating to the corruption of FCOs, which hampers MCSs ability to do their job and results in further mistrust.

Fourthly, with the continuing decline in the TAC over the past few years in addition to rumours of a closure, “uncertainty” in the industry has resulted in legal and illegal fishers trying to secure a share of the resource before harvesting becomes unviable or the fishery is closed (Research Official pers comm. 2008). Further, there is a tendency for people to harvest illegally because others are doing so and they do not want to “lose out” and that getting caught is “bad luck” as opposed to a socially unacceptable violation of the law (Research Official pers comm. 2008).

Fifthly, informants were initially paid per kilogram of abalone confiscated, and this proved to be a very successful system. However, it is felt that payment for information leading to confiscations or arrests are too small and there is little incentive to report poaching (Fishery Control Officer pers comm. 2008).

Lastly, practical constraints to enforcement include that the poacher must be caught in possession of the abalone and when pursued usually throws the abalone overboard (MCS Official pers comm. 2008) and the area that needs to be patrolled is vast and many roads are not easily accessible.

Currently, 40 Fishery Control Officers (ex-MARINES) are appointed in the Overberg area on contract for 2 years and 30 more will be appointed in the near future on one year contracts. However, due to a lack of manpower there is not a full time presence in Kleinmond. In terms of securing community involvement in law enforcement, a station manager is based in Kleinmond and it is his responsibility to set in place mechanisms for cooperation. The rationale is that different approaches will work in different communities and this allows for the station manager to adapt to the local context. However, it is not known whether Kleinmond currently has a Station Manager. MCM also works together with other bodies such as the National Parks, Scorpions, SANDF, CapeNature and the SAPS. Recent developments related to enforcement include: the potential involvement of SARS – to improve control at airports, ports and borders and collaboration with SADEC countries to create awareness of the problem.

A SeaWatch member (pers comm. 2008) was of the opinion that law enforcement officials need to be “conservation minded” as this will make them less vulnerable to corruption and bribery. Further constraints identified by him include the lack of human capacity, lack of equipment and boats and suspected corruption of the inspectors in Hermanus.

Constraints to enforcement highlighted by a local fisherman include that law enforcement has decreased and there are only 3 or 4 Fishery Control Officers. Due to this lack of manpower, poachers collect abalone when the inspectors are at the harbour checking the WCRL boats. Further, there is conflict and lack of

communication between law enforcement officials, which hampers effective enforcement and a lack of control in the harbour results in fishers taking more WCRL than they should.

### ***Factual plans to deal with enforcement problems post ban***

According to Research Officials (pers comm. 2008) no additional policing has been employed to the Kleinmond area since the ban. Instead, there has been a diversion of resources and additional staff have been employed to Zone A and Zone B; thus negating the need for officials from Zone D to be transferred or called away to police other zones. Policing efforts have been focused on those areas that are affected by the diving ban; where the resource is still abundant.

It is not clear whether additional resources have been allocated for enforcement; as contradictory statements were recorded. However, Monitoring, Control and Surveillance (MCS) do have the following long-term strategies in mind:

- (1) To make use of technology to develop and implement a full time observation network. This is out on tender and MCS will appoint service providers to monitor the coast;
- (2) To register all slip-buoys. Slip buoys are the responsibility of Provincial Government and the Local Municipality. Overstrand Municipality have not registered their slip buoy yet. The idea is that the 'authority' who registers the slip buoy must also take responsibility for enforcement and compliance on MCMs behalf;
- (3) To engage with SAPS and National Defence Force in order to make poaching of a "higher" importance.

Further developments since the closure include a higher commitment from SAPS and National Defence Force. However, lacking is full community buy-in as some communities are regarded as hostile, which hampers enforcement efforts. MCS also makes use of partner organisations, such as SeaWatch and also recruit "observers" from the community who stay close to the sea and act as "informal informants". Information received is verified and if a boat is available then the lead will be followed up.

There is conflicting information regarding the budget for enforcement initiatives. An MCS Official (pers comm. 2008) stated that to his knowledge, there had not been an increased budget, however a Resource Management Official (pers comm. 2008), stated that R 20 million had been allocated and that SAPS had committed themselves to the protection of the resource. In addition, the closure of the fishery has resulted in a budget increase for Research from R 500 000 to R 1 million. MCM is currently working on a comprehensive research plan; which includes the setting of targets and monitoring of resource recovery (Research Official pers comm. 2008).

It is clear that there are numerous constraints to the management and enforcement of the abalone fishery. Given the concerns regarding the sustainability of the abalone resource, and the various challenges facing government and communities in terms of compliance, government took the decision to close the abalone fishery. This has had a significant impact on the livelihoods of rights holders. The manner in which the decision was taken and a lack of alternative income opportunities available, has resulted in further animosity towards MCM. This study will examine the impact of the ban on the Kleinmond community.

#### **4.5 Overview of Case Study**

Kleinmond is a fishing community located approximately 120km south east of Cape Town (Figure 2). Fishing activity in Kleinmond dates back to 1915, when a small fishing community established themselves at Jogensklip, which is today the small fishing harbour in Kleinmond (Hauck and Hector 2003; Hangklip-Kleinmond Tourism Bureau). The community was a largely Afrikaans-speaking ‘coloured’<sup>39</sup> community, whose livelihood was based on harvesting marine resources (Hauck and Hector 2003).

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<sup>39</sup> This term refers to a diverse group of people descended largely from slaves, indigenous Khoisan peoples, and other black people and partly from European settlers. Coloured’s are distinct from the white minority and the African population (van Sittert *et al.* 2006).

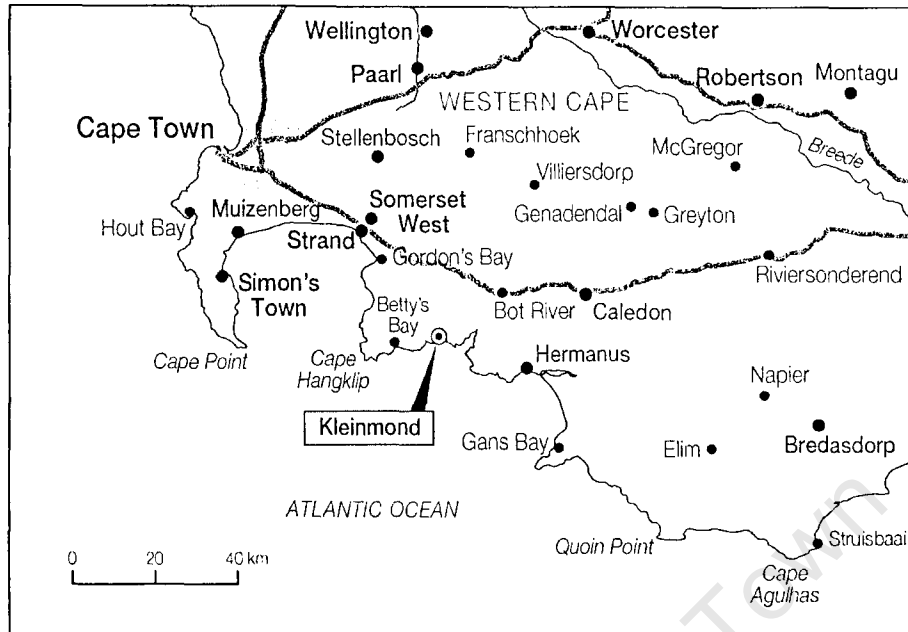


Figure 5: Map showing the case study site

In 1948, these fishers were moved inland and in 1954, the harbour area where the fishers' homes were located was declared an Industrial Zone (Hangklip-Kleinmond Tourism Bureau 2008). Their homes were located on the area that serves as the parking lot today (Hofmeyr 1985). This relocation was based on the Group Areas Act 41 of 1950 and has led to the development of the 'Coloured' community of Proteadorp where many of the fishers live today (Hofmeyr 1985). Traditional fishers in Kleinmond have a long history of harvesting linefish and abalone and following the promulgation of the MLRA, many were allocated formal rights to these resources, and WCRL, through subsistence, limited commercial and commercial rights (EEU 2008). Prior to the promulgation of the MLRA and the reallocation of fishing rights, no traditional fishers in the Kleinmond community had commercial quotas to harvest abalone or WCRL resources (Hauck and Hector 2003).

The Kleinmond area has a population of 9305 permanent residents (Hangklip-Kleinmond Statistics 2007), with many holidaymakers and tourists frequenting the area (Hauck and Hector 2003). Table 2 shows the population distribution as per the Census 2001 data (more recent Census data is not available) (Overstrand IDP 2008/09).

**Table 2: Population: Kleinmond, Proteadorp, Overhills and Hangklip (Census 2001)**

Black African	2001
Coloured	2582
White	2306
Indian/ Asian	7
<b>TOTAL</b>	<b>6896</b>

Although most fishers in Kleinmond reside in Proteadorp, in more recent times, an informal settlement known as Overhills was established in 1990, and consists of 486 households (Mthimkhulu 2006). The Overhills settlement, adjacent to Proteadorp is a largely black settlement, with most residents having migrated to Kleinmond from the Eastern Cape. Some members of the Overhills settlement are involved in harvesting marine resources – a few received interim relief permits and one or two have WCRL quotas; whilst others try their hand at harvesting without permits (Fishery Control Officer pers comm. 2008). Some work as crew members, although exact numbers involved in fishing activities are not known.

Statistics for the Overstrand Local Municipal area indicate that fishers in Kleinmond reside in a comparatively well developed area (Statistics SA 2007). The Overstrand Municipality consists of 21 953 households, or 74 547 people. 85.3% of households live in formal dwellings and 65, 9 % of households own their own houses - 51% of which are fully paid off. Access to basic services is good, with 96, 5% of households having access to electricity for lighting; 89, 7% for cooking; and 77, 3% for heating purposes. More than 98% of the households have access to flush toilets and 98, 1% of households have refuse removal.

Poverty in the Overstrand municipal area is “highly racialised and geographically concentrated” (Overstrand IDP 2008). Economic forces, such as the decline in fishing and the seasonality of tourism, impacts negatively on the unskilled and semi-skilled workforce in Overstrand. Further, in-migration of poor and unskilled people is associated with rising rates of poverty and inequality (Overstrand IDP 2008). People depend mostly on grants, informal construction work and illegal livelihoods such as abalone poaching (Overstrand IDP 2008).



### *Resource users in the case study area*

The fishers in Kleinmond, most of who reside in Proteadorp, are mostly small-scale fishers with limited (small-scale) commercial rights. However, 24 interim relief permits have also been allocated in this area, and many fishers buy recreational permits from the Post Office as a means of gaining legal access to the resource. The community consists of both traditional/ historical fishers as well as new entrants into the industry who do not have a long history of fishing. The fishers interviewed for this study largely had a history of fishing, with most reporting that their fathers and grandfathers had been fishers. Years spent harvesting marine resources ranged from 10-68; with an average school leaving age of 14. Fishers in Kleinmond tend to be involved in fishing activities throughout the year, and the frequency and duration of harvesting is mainly influenced by the weather conditions.

This study focused on abalone rights holders who depend on fishing for their livelihood and who received more than half, and sometimes all of their income, from fishing activities. These fishers are not subsistence or recreational fishers, but sell their catch in order to generate a cash income (Hauck and Hector 2003). These fishers are mostly in possession of limited commercial WCRL, linefish and or abalone permits and predominantly own their own boats (8 of the 9 abalone rights holders interviewed owned their own boats and 6 rented their boats out for extra income). Hauck and Hector (2003) classified these boat owners as “small-scale commercial” fishers. Predominantly these fishers are from the ‘coloured’ community. As stated in Hauck and Hector (2003), these small-scale commercial fishers are considered leaders in the community and have earned the respect of the fishing community.

There are also those fishers in the community who continue to harvest resources without formal access rights (EEU 2008). They are considered ‘poachers’ by government (EEU 2008) but tend to be considered as two distinct groups by the fishers. The first group is those fishers who were denied access to a fishery through what was considered an unjust rights allocation process; in which historical fishers did not gain access to resources, which they had been harvesting prior to the MLRA (Hauck and Hector 2003). This would include what Hauck and Hector (2003) term *ad hoc* poachers; those legal fishers who exceed their quota or those who harvest

resources for food without a permit. Thus, whilst many fishers do not condone poaching, they sympathise with those that do so in order to provide basic needs for their families.

The other group includes those persons involved in large-scale illegal fishing (mostly of lucrative abalone), who are also linked to other criminal activity such as drugs, particularly “tik” (EEU 2008; Russell 2007). Fishers in Kleinmond regard the large-scale illegal fishers as the ‘real’ poachers and thus there are different scales of illegally fishing which is perceived differently by the broader fishing community (Hauck and Nursey-Bray 2002).

Prior to the MLRA of 1998, small-scale fishers were considered illegal by the state or operated under regulations for recreational fishing (Hauck 2008). However, since 1998 fishers have been given the opportunity to apply for legal access to marine resources through the allocation of subsistence and ‘limited commercial’ rights (Hauck 2008). Although many more people now have legal access to marine resources, many traditional fishers have been excluded and are therefore not legally recognised as fishers (Isaacs 2006; Sowman 2006; Hauck 2008). This is due to inequitable policy implementation and the hijacking of opportunities by the local elite (Isaacs 2006; Hauck 2008). As a result, the management system has little legitimacy and has led to ‘protest fishing’ – where those fishers who do not have a legal permit continue to fish because they believe it is their right to do so (Hauck 2008). Although technically ‘illegal’, some authors refer to these fishers as ‘informal’, because the legitimacy of the laws themselves is called into question. However, in this dissertation, fishers who harvest without a permit will be referred to as ‘illegal’, whilst those with legal access to a fishery will be referred to as ‘rights holders’.

### ***Marine resources harvested***

Fishers in Kleinmond mainly harvest WCRL, abalone and various species of linefish<sup>40</sup>. Abalone and WCRL are both harvested commercially by means of the allocation of 10-year (long-term) rights and quotas that are determined on a yearly

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<sup>40</sup> Including: Cape Snoek (*Thyrsites atun*), Hottnetot (*Pachymetopon blochii*), Carpenter/ Silverfish (*Argyrozona argyrozona*), Rman (*Chrysoblephus laticeps*) and Cape Salmon/ Geelbek (*Atractoscion aequidens*)

basis. Some fishers in the area have recreational WCRL permits purchased from the post office, allowing the permit holder 4 crayfish per day during the open season (November through April) but this catch cannot be sold.

Abalone harvesting takes place between November and April, with most effort during November, February and March (01 November – 31 July); whilst WCRL is harvested mostly during March (the season is open from 15 November to 30 June). One fisher pointed out that the abalone industry is strongly influenced by the market, and they take into consideration the price that the market is offering. For example, the Chinese New Year falls during January and February and this creates a large demand and consequently higher prices. Whilst WCRL is harvested in the Kleinmond area, abalone rights holders have mainly been harvesting their allocation at Robben Island for the past 2 years. This is due to the decline in abalone in Zone D (mostly due to the increase in WCRL) and thus the decision by MCM to allow rights holders to harvest in Zones where the resource is still viable. Fishers harvest anywhere between 100 – 800 kg in one day (8am-3pm) and most harvest their allocation in 1-3 days.

Linefish and WCRL are harvested with commercial, interim relief or recreational permits. Interim relief permits were allocated in mid-2007 to small-scale traditional fishers along the west and south coasts as a relief measure while the small-scale fisheries policy is being developed (EEU 2008). Many of the fishers consider these interim relief permits as 'subsistence' permits, probably because they are limited by bag limits (EEU 2008). Fishers are limited by bag limits as follows: 20 WCRL per week, as well as 10 snoek, 10 yellowtail, 10 hottentot, 10 silverfish and 30 white mussels (for bait) per day. However, a cumulative total of no more than 30 of any combination of the linefish may be caught per day, except when snoek or yellowtail are running, in which case the permit holder may catch 30 of either, but no other species (DEAT 2007). These permits emanated from an out of court settlement between the Minister of DEAT and artisanal/small-scale fishers and there are currently 24 interim relief permits in the Kleinmond area (EEU 2008). Some linefish species are seasonal and others are available throughout the year (Hauck and Hector 2003). There is evidence of illegal harvesting of linefish for household consumption as well as illegal WCRL harvesting for sale or consumption.

Historically, marine resources were accessible to all fishers through an open access system before regulations and management measures were put in place by the government (for abalone, in the 1970s) (EEU 2008). Prior to the MLRA, none of the fishers in Kleinmond had commercial quotas to harvest WCRL or abalone (Hauck and Hector 2003). Fishers first gained legal access to abalone through subsistence permits<sup>41</sup>, which were allocated in 1998 for three years (EEU 2008). In 2000, a pilot co-management initiative was undertaken in Kleinmond, which resulted in the allocation of 3 small-scale abalone quotas, as well as an experimental commercial WCRL quota (Hauck and Hector 2003). In 2001, subsistence abalone permits gave way to limited-commercial quotas (DEAT 2002b). In 2001 fishers could apply for limited commercial abalone quotas and in 2003 long-term rights (10 years) were allocated (EEU 2008). Prior to the closure of the abalone fishery, there were 15 individual rights holders and 3 companies who had abalone rights in Kleinmond. The commercial WCRL fishery was also introduced in 2003 and by 2008 there were 147 commercial rights holders in the Kleinmond area (EEU 2008). It is important to bear in mind, that the allocation of rights to access marine resources in the Kleinmond area has been a matter of contention and attempts have been made by various stakeholders to secure commercial quotas (Hauck and Hector 2003). The recreational abalone fishery has been closed since 2003 (DEAT 2003).

Before the closure of the fishery, abalone was only allowed to be harvested by those in possession of long term rights, of which there are 302 rights holders<sup>42</sup> in South Africa (South Africa.info 2007). Commercial abalone and WCRL are sold to processing factories. The processing factories are organised buyers and are mostly located outside of Kleinmond in Hermanus and Hout Bay, although a few rights holders sell their catch to Ocean Star, a local processing factory. Recreational WCRL and linefish are primarily consumed or shared with neighbours and crew members, although some fishers sell their catch to holiday makers.

Abalone harvesting requires a relatively large investment in equipment. Apart from a vehicle and boat, which costs approximately R80 000, including a VMS, quota holders require a compressor (which can cost in the region of R15 000 – 20 000), a 50-60 meter hose (supplying oxygen), a full diving kit, nets with balloons, measuring

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<sup>41</sup> Subsistence permits were formalised for the first time in the MLRA (EEU 2008)

<sup>42</sup> 262 individual divers and 40 close corporations

rings, approximately 100 litres of fuel, a stainless steel lifter tool, a 'panga' to chop away seaweed and a "unit"- which is a weight belt or jacket which helps you to maintain your balance under the water. Harvesting abalone requires a crew and most boat owners 3 crew members who help them harvest their quota. Thus the fishers are required to invest a relatively large amount of capital in equipment. In fact, the Abalone Policy (DEAT 2003) required that applicants indicate a certain level of investment in the industry, generally requiring that applicants have access to a boat. DEAT (2006) determined through a telephonic survey that the average investment per diver is R259 000, broken down as follows: Vessel<sup>43</sup> (R80 000), Vehicle<sup>44</sup> (R170 000), diving gear (R3 000) and Compressor (R6 000).

### ***Current state of resources***

Most linefish are in a critical condition and have been depleted to 5-10% of pristine levels by overfishing (Branch and Clark 2006). According to van Sittert *et al.* (2006), the decline of linefish was not due to "*malicious or intentional flouting of regulations*", but rather due to progressively greater fishing effort over the last century – the effects of which have only recently been detected. Linefish stocks in the Kleinmond area have declined extensively over the years mainly due to overfishing (Attwood *et al.* 1997). Fishers interviewed blame the declines in local fish stocks on commercial fishing trawlers coming in too close to shore and claiming species such as snoek, as by-catch. It was agreed by all fishers that linefish stocks were not as abundant as they had once been.

In initial interviews, when fishers were asked what species they consider to be the most abundant in the area, the overwhelming response was that WCRL is the most abundant, followed closely by abalone. This response was surprising given that the WCRL TAC has been decreasing by 10% per year for the past three years<sup>45</sup>. Follow up interviews with fishers indicated that there is currently concern about the WCRL resource and that fishers are struggling to harvest their allocation before the season closes. Fishers were not the only ones to highlight this problem; abalone processing factories, who now also process WCRL, indicated that they were concerned that the

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<sup>43</sup> Replacement value

<sup>44</sup> Replacement value

<sup>45</sup> However, relative to previous years (i.e. before the WCRL migration) there is a higher abundance of WCRL

TAC would not be filled this season; and that 100 tonnes had to be landed in the last month. Possible reasons for this decline were attributed to poaching, the movement of WCRL back up the west coast and “lice” which occur as a result of poachers only taking the tail section and throwing the heads back into the water – it is believed that the lice “chase away” the living WCRL (whether this is fact or a myth has not been determined). Maharaj *et al.* (2007) state that they are unsure whether the encroachment of WCRL is permanent or part of a long-term cyclical change.

Abalone abundance has also decreased due to poaching and biological interactions between WCRL, juvenile abalone and sea urchins (Tarr *et al.* 1996 in Hauck and Hector 2003). The TAC for the abalone fishery has been decreasing annually, and culminated in the closure of the fishery in February 2008. Poaching is harmful to the resource, because abalone much smaller than the legal minimum size<sup>46</sup> is harvested, reducing the number of individuals that would reach legal size (Hauck and Hector 2003). Further, poaching results in a much larger amount than is sustainable being removed from the sea, with detrimental impacts on the species in the long term. Recent confiscations of abalone are of a much larger size class, and are believed to be from the Betty’s Bay Marine Reserve (Hauck and Hector 2003).

All abalone rights holders see a future abalone fishery as a viable option, with a functioning co-management arrangement in place (EEU 2008). Further, they feel that they are owed the remainder of their long-term right and that as such MCM has a responsibility to them – whether financially (by paying out the remaining years on the long term right) or by providing support for alternative livelihoods (EEU 2008).

Fishers claim that MCM has closed the fishery without undertaking a survey or conducting research in the Kleinmond Area. Due to constraints<sup>47</sup>, ‘Research’ has had to prioritise zones according to the state of the resource. Thus for the past few years, Zone B, Robben Island and Zone A (in order of importance) have been a priority in terms of surveying and sampling due to the relatively “better” state of the resource in these areas (Research Officials pers comm. 2008). Consequently, Zones C and D<sup>48</sup> have not been surveyed because recruitment is failing in these areas (i.e. recruitment

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<sup>46</sup> Possibly to supply the market with cocktail abalone or because full size individuals are hard to come by.

<sup>47</sup> E.g. number of perfect sea days; lack of capacity, staff and resources

<sup>48</sup> Zone C is worse off than D

is currently less than 5%) due to the movement of WCRL into the area<sup>49</sup> (Research Officials pers comm. 2008). Therefore the resource in these zones is going to collapse regardless of whether or not fishing effort is reduced (Research Officials pers comm. 2008).

According to a UCT Researcher (pers comm. 2008) the state of the resource in Zone C and D is poor; yet zones A and B can still support a viable commercial fishery. The state of the resource in A and B is “where you want it to be” and if you could cut back poaching (even by only half) then you could have a viable fishery (UCT Researcher pers comm. 2008). The legal industry is having little effect on the resource as they are taking about 10% of the total abalone harvest (incl. legal poaching) every year. It’s the other 90% that is the concern. For the 2006/2007 season, the total amount poached from Zones A-D was approximately 12 times greater than the annual TAC for these zones (ASWG 2007).

### *The role of marine resources in the livelihood strategies of fishers*

In Kleinmond, there are 15 individual rights holders and 3 entities that have been allocated long terms rights to harvest abalone. Each rights holder employs on average 3 crew members. Apart from the legal rights holders, there are also a number of people in the community who harvest abalone and other marine resources without permits. This study focused specifically on legal fishers or rights holders in Kleinmond.

Marine resources play an important role in the livelihood strategies of abalone rights holders in Kleinmond. Whilst some are involved in non-marine related activities; abalone still provides the majority of their monthly household income. Abalone is the most lucrative fishery in Kleinmond, and fishers earn between R 125 - 250 per kilogram in the shell<sup>50</sup>. WCRL earned fishers in the range of R 60 – 113 per kilogram whole in the shell. Linefish, such as snoek, sells for R15-20 per fish whilst a mixed bunch of 3 linefish sells for R35.

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<sup>49</sup> Since 1994/1995

<sup>50</sup> An article in the Mail & Guardian (“Kortbroek’s ban hits heavy flak” 03/11/2007) values the 2006/07 TAC of 125 Tons at R50 million a year – one assumes this is the total value of the industry.

According to rights holders, monthly income differs from year to year, as it depends on the allocation received (kilograms) as well as the price offered by the factory<sup>51</sup>. Fishers who only had an abalone quota, and had their own boat earned between R 3500 and R 8000 per month. One abalone quota holder who had to pay for the use of a boat earned R2500 per month. Fishers who had both an abalone and WCRL quota earned between R5000 and R10 000 per month. One fisher, who had only a WCRL quota earned R 4500 per month. Table 3 below indicates the WCRL and Abalone allocations per fisher for the 2006/ 2007 season, as well as the price per kilogram received and their monthly income. The total monthly income in rand includes the income received from abalone and WCRL harvesting, renting out of boats and any additional income earned from working as crew on boats. Thus the “Monthly Income in Rand” is the income received from all marine-related activities (including renting out of boats).

**Table 3: Monthly income received from Abalone and WCRL**

	<b>Abalone in kg's</b>	<b>Rands/ kg</b>	<b>WCRL in kg's</b>	<b>Rands/ kg</b>	<b>Monthly Income in Rand</b>
<b>Fisher 1<sup>1</sup></b>	428	190	500	70	10 000
<b>Fisher 8<sup>1</sup></b>	242	200	750	108	10 000
<b>Fisher 7<sup>1</sup></b>	320	230	500	100	9000
<b>Fisher 6*</b>	240	240			8000
<b>Fisher 9</b>	600	200			7000
<b>Fisher 10<sup>1</sup></b>	150	180	750	90	5000
<b>Fisher 5<sup>1</sup></b>	150	250	500	110	5000
<b>Fisher 4**</b>			750	113	4500
<b>Fisher 2<sup>1</sup></b>	395	125			3500
<b>Fisher 3</b>	230	165			2500

Where incomes or price per kg were given over a range, the average value was taken for the table

\* sells WCRL caught on recreational permit

\*\* additional income earned as a crew member on the boats

<sup>1</sup> Receives an income from renting out boat

<sup>51</sup> This is influenced by the exchange rate.



The majority of income is spent on food and clothing, with school fees, equipment purchases and petrol being other major expenses.

Before the abalone fishery was closed, rights holders who had abalone and WCRL quotas considered abalone to be their most important form of income, with WCRL second and the renting of their boats third. For all fishers, abalone brought in more than half of their income. Currently, these fishers consider WCRL and the renting of their boats as their most important forms of income. Yet, those fishers who only had abalone quotas now have no formal income at all<sup>52</sup>. Of the 9 abalone rights holders interviewed, 8 had their own boat and 6 of them rent the boat out for extra income<sup>53</sup>. Boats are rented to those rights holders who do not own a boat, with the owner of the boat usually acting as skipper. Boat owners charge in the region of R15 000, inclusive of petrol and crew, to harvest another rights holder's quota. Some boat owners are still receiving an income from harvesting of WCRL quotas.

Most fishers believe that fishing activities provide them with a secure form of income when resources are managed correctly. However, there is great uncertainty with regards to future access to resources; which has been exacerbated by the closure of the abalone fishery and the decrease in the TAC for WCRL (EEU 2008). The closure of the abalone fishery in February 2008 has significantly impacted on the household income of abalone fishers, as they are all regarded as the household head and bring in the majority (if not all) of the income. Additionally, at the time of allocating long-term rights, rights holders were encouraged to invest in suitable vessels, gear and other applicable equipment, which has resulted in many fishers sitting with debts incurred as a result of these investments.

Those who also have WCRL are being affected by the TAC reductions, resulting in unviable quota allocations (EEU 2008). Many fishers indicate that with the rise in fuel prices, it is becoming less and less viable to harvest WCRL considering the current quota allocations of 500 or 750 kilograms.

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<sup>52</sup> One fisher does own a shop/ bottle store from which he can derive an income. Another fisher is a volunteer fire fighter, but this is an erratic form of income.

<sup>53</sup> The owner of the boat acts as skipper, and the rights holder pays him a certain amount for the use of his boat/ services to harvest his quota

There is consensus amongst fishers that too many people are involved in the abalone fishery. In particular, there are many new entrants in the industry that have little or no history of involvement in fishing, yet have been allocated permits. Further, poor management and control over the resource due to a lack of capacity in enforcement has impacted negatively on the resource.

Procurement of long-term rights in 2003 has had a positive impact on the socio-economic circumstances of fishers in Kleinmond. Fisher's lifestyles improved and they were able to invest in their children's education and purchase equipment for fishing. One fisher has sent his daughter to be educated at a tertiary institution, which he says he would not have been able to do without the income from abalone fishing. What most fishers do point out is that many managed their money poorly and thus have very little money saved or invested. One fisher indicated that he knew "it wouldn't last", referring to the long-term rights, and as such got involved in buying and selling property.

#### ***Additional and complementary livelihood and income generating activities***

Historically, additional sources of income have been used by fishers to sustain their livelihoods. They argue that this has been necessary because of rough sea conditions during the winter months and because of annual decreases in the TAC of abalone and WCRL over the past three years.

Fishing communities such as Kleinmond tend to have a long history of being involved in the construction trade, because when the sea is too rough (usually in the winter months) or fishing is not viable, fishers would get involved in building work during the 'off-season'. This includes bricklaying, tiling, plastering, painting and wood work, and most fishers (even those who have been fishing since their early teens) have skills in some of these vocations. Even though fishers in Kleinmond were historically involved in the building trade, only 4 fishers indicated that they did *ad hoc* building work<sup>54</sup> when they were not involved in fishing activities. They were quick to add that this was "hand to mouth" work, which did not add substantially to their monthly

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<sup>54</sup> This includes bricklaying, plastering, painting and carpentry – and most fishers have skills in some of these vocations. It is interesting to note that most fishers built their own homes; adding on year by year as finances allowed.

household income. Other fishers are involved in formal and informal business ventures including owning a bottle store, buying and re-selling of fish, buying and selling property, and one fisher receives a pension.

Some of the fishers indicated that they have been “investigating” alternative income earning opportunities since the abalone closure. One fisher is hoping to formalise the buying and selling of fish and is in the process of constructing a processing and packing room. Another fisher is buying WCRL in large quantities from the West Coast and transporting it to Kleinmond where it is processed and exported.

Crew members<sup>55</sup> (also known as “bakkie-boys”) earn an income by assisting on the boats also catch fish with a hand line. This provides a contribution to the household food and some will also supplement their income with *ad hoc* construction, painting, tiling or gardening work when it is available. Some are still employed on the WCRL boats, but the season closes at the end of July. These jobs become available on an *ad hoc* basis and are not a reliable form of income and as a result crew members can be unemployed for long periods of time.

Rights holders feel responsible for their crew, and usually kept them busy outside of the abalone season with jobs such as boat maintenance and repair, or even as “handymen” around their homes. At the time of this research, some rights holder were still employing their crew in this capacity; although others have encouraged their crew to look for other work because they cannot afford to pay them. Many crew members have turned to illegal fishing to supplement the *ad hoc* income received from construction work.

## 5. Findings

The findings presented in this section are based on an analysis of the available literature and court proceedings, interviews, questionnaire surveys and focus group discussions. Nine abalone rights holders were interviewed by means of a

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<sup>55</sup> Crew members jobs include: lifting the bags of abalone out of the water and onto the boat; measuring and cleaning the abalone; packing abalone in crates and transferring it onto the truck that transports the abalone to the factory. Crew members also clean the boat.

questionnaire, which was used to guide the interviews, and two focus group meetings were held with abalone and WCRL rights holders. In addition, a few linefish and WCRL fishers were interviewed. Ten Marine and Coastal Management officials were interviewed, as well as social and natural scientists based at the University of Cape Town. Further, boat based whale watching operators, local business people, local and provincial government officials and abalone processing factory managers were interviewed.

## **5.1 Decision making process**

### **5.1.1 Announcement of the decision**

On 26 October 2007, the Minister of Environmental Affairs and Tourism published a notice in the Government Gazette (GG) stating that “*an emergency had occurred that endangers the stocks of wild abalone*” and that “*wild abalone stocks (are) at such a low level that a complete suspension of all fishing is required in order to promote the recovery and rebuilding of the abalone resource*”. The suspension came into operation effective immediately and the Minister acted in terms of Section 16 of the MLRA:

*(1) If an emergency occurs that endangers or may endanger stocks of fish or aquatic life, or any species or class of fish or aquatic life in any fishery or part of a fishery, the Minister may -*

- (a) suspend all or any of the fishing in that fishery or any specified part of it;*
- (b) restrict the number of fishing vessels fishing in that fishery; or*
- (c) restrict the mass of fish which may be taken from that fishery.*

*(2) The particulars of any measures taken in terms of this section shall be made known by notice in the Gazette and in any other appropriate manner*

On 25 October 2007, the Minister made a press release announcing his decision to close the fishery. He stated that “*the commercial harvesting of wild abalone can no longer be justified because the stock has declined to such an extent that the resource is threatened with commercial extinction*”. He went on to say that the main causes for the decline were poaching and the migration of WCRL into the abalone areas.

He continued by saying that *“for the past few years the recommendation of (his) department’s managers and researchers has been that the fishery is in crisis and that closure could not be avoided”*. Further, to ensure that the suspension of harvesting was observed he stated that monitoring and control on the part of the department would be up-scaled and that abalone population dynamics will be monitored through regular research surveys.

The Minister also announced that *“(they) have...consulted with the Department of Labour and jointly developed a Social Plan to mitigate impacts of suspending Wild Abalone Commercial Fishing. This plan includes our department's commitment to developing a sustainable aquaculture industry and the issuing of additional permits for whale watching and shark cage diving”* (SAGI 2007).

#### **5.1.2 The process leading up to the decision**

As early as 2003, the Abalone Policy indicated that the Minister was faced with 3 decisions. These were to continue with the status quo, implement co-management of the abalone resource or close the fishery (DEAT 2003). The Abalone Policy also ‘warned’ that if stocks declined in secondary zones the Minister would be forced to declare a zero TAC. In addition, the Betty’s Bay Marine Protected Area (MPA) was no longer considered sufficient to protect the resource and Dyer Island also had to be closed (DEAT 2003; ASWG 2007). At the time, the adverse socio-economic consequences weighed against closure, and the co-management option was chosen (Augustyn 2008a). The management system adopted became known as the TURF system (Augustyn 2008a).

However, the TURF system did not have the desired effect of increased ownership and decreased poaching, and stock assessment models showed a continuing decline in resource strength and TAC from year to year (Augustyn 2008a). Then in 2004, when the Minister announced the TAC for abalone he stated that unless there was a drastic decline in poaching, that he would have to consider a complete ban in order to allow for resource recovery (Augustyn 2008a). Again in 2007, the Minister warned in his budget speech that unless the decline in South Africa’s abalone resource was

significantly reversed by November 2007, he would be forced to close the legal commercial abalone fishery (Bürgener and Hauck 2007).

In 2006, the Minister requested advice on options around the possible phased closure of the abalone fishery over a 3-year period (Maharaj *et al.* 2006). Within MCM, each directorate (Resource Management, Integrated Coastal Management, Research, Antarctica and Islands and Monitoring, Control and Surveillance) had to provide comment on the implications of closure of the abalone fishery, in the form of an opinion or motivation for immediate closure or closure over a period of 3 years (pers. comm. Research Official 2008). In 2006 the Chief Director: Research, Antarctica and Islands commissioned a departmental report on the status of the abalone resource from scientists in the Inshore Resource Research Deputy Directorate in response to this request.

This departmental report, titled “*Status of the Abalone (H. midae) Resource*”, recommended immediate rather than delayed closure of the abalone fishery (Maharaj *et al.* 2006). The report emphasised the negative effects of poaching on the resource, explained why the TURF system failed and stated that the “*complete collapse and closure of the fishery seems inevitable given the status quo*” (Maharaj *et al.* 2006; Augustyn 2008a; Bozalek 2008). The option of immediate closure was favoured for two reasons. Firstly, there was a fear that abalone population density might decline to such a point where the remaining adult population is too sparsely distributed for them to reproduce effectively, this is also known as the Allee Effect (DEAT 2006; Maharaj *et al.* 2006). Secondly, there was a perception that a phased closure would result in rights holders rebelling and joining illegal harvesters, resulting in the poaching of the last remaining abalone (DEAT 2006; Maharaj *et al.* 2006; Research Officials pers comm. 2008; Augustyn 2008). The report mentioned the need to consider the socio-economic impact of the closure, and that initiatives to implement alternative livelihoods should be launched on the coast (Maharaj *et al.* 2006). The findings of this study were not shared with stakeholders as this report was a confidential internal report.

An outside consultancy was also commissioned in 2006 to prepare a report that “*addressed a wide range of issues*” including an overview of the abalone fishery, an

assessment of alternative livelihoods and socio-economic considerations and other factors that needed to be considered in the event of closure and recommendations (DEAT 2006; Augustyn 2008a). The report, titled “*Final Report: evaluation of the current status of the abalone fishery*” recommended partial closure and reduced TACs in open zones (DEAT 2006). The partial closure, it was argued, would provide time to “*explore alternative solutions to the socio-economic factors whilst ensuring that the resource can recover substantially in the medium to long-term*” (DEAT 2006). The report also recommended that each Directorate (Resource Management, Integrated Coastal Management, Research, Antarctica and Islands and Monitoring, Control and Surveillance) develop a strategy to implement the partial closure recommendation (DEAT 2006). A further recommendation was that an inter-departmental initiative be established to ensure co-ordination of joint projects and to assign roles and responsibilities to various departments in terms of the management, protection and rebuilding of the abalone resource (DEAT 2006).

On the basis of these two reports and the department’s own assessment of the situation, the fishery was closed in three zones (A, C and D) for the 2006/07 season (Maharaj *et al.* 2007; Augustyn 2008a). Three TAC options were proposed for the 2006/2007 season namely, 195, 125 or 68 tonnes and the Minister selected the recommended TAC of 125 tonnes.

Despite the partial closure decision taken in 2006, the pressure on the resource was still perceived to be severe, and thus the reports produced in 2006 were updated and resubmitted in 2007. In the interim CITES was implemented which further indicated commitment from government to the protection of the abalone resource. Specifically, the 2006 report by Maharaj *et al.* (2007) was updated. The reports were considered and discussed by top management and resulted in a recommendation being made by the Director-General to the Minister on 22 August 2007 for the suspension of wild abalone harvesting as an emergency measure (Augustyn 2008a). The process that led to this initial recommendation (to close the fishery) had input from biological and fisheries scientists, applied mathematicians, social scientists, lawyers and members of the department (Bozalek 2008). It was on this recommendation that the Minister

decided to act and approached Cabinet<sup>56</sup>. The issue was submitted to Cabinet, but approval was not granted until a Social Plan was submitted as well, addressing the socio-economic impact of the suspension (Augustyn 2008a). A Resource Management Official (pers. comm. 2008) stated that the reason the Minister approached Cabinet was to illicit support from other government departments. However, this support was not forthcoming and on 25 October 2007 Cabinet declared that the abalone fishery would be closed indefinitely. On 26 October 2007, the Minister published a Notice in the Government Gazette announcing the suspension of all fishing in the wild abalone sector until further notice (Augustyn 2008a).

### **5.1.3 Revised decision**

The announcement of the ban led to outrage and a quick response from abalone rights holders. However, after an application was brought against the Minister in the High Court to reverse the decision the Minister issued another press statement on 31 October 2007<sup>57</sup>. In this statement, he announced the suspension of his earlier decision until 01 February 2008 and declared a TAC of 75 Tonnes for a 3 month period (01 November 2007 - 31 January 2008). He remained of the view that the resource was endangered; but due to pressure from communities he requested that the Department see if there was any scientific basis to delay the implementation of the decision. On the basis of a report received from the Department on the morning of the 31<sup>st</sup> October and after considering the socio-economic implications of the decision; the Minister decided to delay the decision until the 1<sup>st</sup> February 2008. The Report that the Minister received on 31 October was a TAC Recommendation from the Director General.

The decision to close the abalone fishery did not follow the usual decision making process as laid out in section 4.1 above. Instead, the ASWG was working on their TAC recommendation for the 2007/2008 season, whilst the decision-making process to close the fishery was taking place within MCM. These two separate processes were conducted simultaneously. The ASWG Report, dated August 2007, recommended a global TAC of 50 or 125 tonnes. Specifically, the Zone B recommendation of zero or

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<sup>56</sup> One MCM official claims that the reason the Minister had to approach Cabinet, was because he had consulted with other departments and spheres; and thus the decision was not only on MCM.

<sup>57</sup> In the matter between: Oscar Delmore Fisher (First Applicant), The South African Abalone Industry Association (Second Applicant) and The President of the Republic of South Africa (First Respondent) and The Minister of Environmental Affairs and Tourism (Second Respondent). Case No: 15572/ 2007.



75 tonnes indicated a difference of opinion amongst members of the ASWG. The ASWG were aware that the Minister was considering closure. The ASWG were seen to have overstepped their mandate as they were a research and scientific body when the following view was expressed in their TAC recommendation: *“closure of the commercial fishery, in the absence of a revised compliance approach and community buy-in, cannot result in resource recovery and could worsen poaching”*. However this view was considered to fall outside of the ASWG's terms of reference (Augustyn in Bozalek 2008).

So although the suspension recommendation was made in August 2007, based on the internal research reports, work in relation to a TAC recommendation (by the ASWG) had to continue because of the possibility that the Minister might not accept the recommendation. After the Minister accepted the closure recommendation on 22 August 2007, the TAC process continued because the Minister still had to go before Cabinet (Augustyn 2008b). Therefore the ASWG continued to work on its recommendations (Augustyn 2008b).

The Chief Director: Research, Antarctica and Islands considered the ASWG recommendation and worked on it during September, but did not complete his recommendation at this stage, because the Minister had supported the closure recommendation. The request from the Minister to see if there were any scientific grounds for postponing the implementation of the closure was referred to the Chief Director. He only then completed work on the ASWG TAC recommendation in October 2007 and signed off on it on 30 October 2007 after the request from the Minister. The CD's recommendation was closure of the abalone fishery, but in the event that the fishery should not be closed, he recommended a global TAC of 125 tonnes (one of the ASWG's recommendations). This recommendation made its way up the decision-making chain to the D-G in the Department, who on 31 Oct 2007 made two alternative recommendations: (i) immediate closure until further notice or (ii) suspension to take place on a date announced by the Minister with a TAC of 75 tonnes for the intervening period. The Minister accepted the second recommendation on 31 October 2007.

Thus two separate processes were simultaneously in progress with different recommendations. The reports compiled by MCM (specifically Maharaj *et al.* 2006) recommended closure; whereas the ASWG document recommended a TAC for the 2007/2008 season. However, the Minister (and Cabinet) made their decision to close the fishery based on the recommendation of MCMs top management prior to the completion of the ASWG recommendation.

A UCT Researcher (pers. comm. 2008), insists that the report compiled by MCM and used to support the decision was not balanced and only drew on information that could support closure of the fishery. Further, this report was not reviewed by the ASWG and contained a number of errors and contradicted the ASWGs recommendations. This decision “*was based on fraud science and not on the best available science*” (UCT Researcher pers. comm. 2008). Further, the Researcher (pers. comm. 2008) disagreed with a statement made by the Minister in his initial press release, where he referred to “scientific studies” which indicated that the resource was depleted. According to the Researcher there were no other scientific studies that justified the conclusions and reasons the Minister gave for the closure. In fact, this researcher was of the opinion that scientific work conducted to inform this process had been misquoted. Thus while the researcher believes that one could justify the closure of the fishery; the reasons for closure that were given in the press statement were not valid.

Although MCM does have a right to change the ASWG recommendation, the ASWG was not notified about the changes to the TAC, and were informed like everyone else via the press. If the process was as consultative as some MCM officials claim, the ASWG members should have been informed. Further, there had been a good history of the ASWG advice being taken – why was it different this time around? In addition, it seems there were also documents that did not support closure of the fishery. However, these were not mentioned by any MCM officials interviewed, and were also not available in the court proceedings. Thus if these reports do exist, they are not public documents and therefore could not be reviewed.

Although MCM officials claim no one person or directorate was pushing for the ban, a UCT Researcher (pers. comm. 2008) claims that some ASWG Scientists have been

pushing for the closure over the past few years. The Minister's press statement to the effect that his managers and researchers have recommended closure for the past few years supports this. A Research Official (pers. comm. 2008) also indicated that departmental scientists were more "pro-closure" than the ASWG itself.

#### **5.1.4 Legal action against the decision**

The Applicants<sup>58</sup> remained dissatisfied with the Minister's decision and they pursued their Court application. Their main grounds for the case was whether or not the Minister was correct in deciding that there was an 'emergency' in the fishery which justified invoking the provisions of Section 16 of the MLRA. Instead, they argued that all that existed was a "crisis" that needed to be "managed".

They maintained that there was a contradiction between the advice of the ASWG (which recommended a TAC) and that of the Chief Director (who recommended closure); as described above. Further, they argued that the CDs advice was self-contradictory, since on the one hand he recommended closure and then later a TAC of 125 tonnes for 2007/2008.

The Applicants argued further that Cabinet's decision endorsing the Ministers initial decision to suspend the fishery was taken on 25 October 2007, yet the CDs recommendation to this effect was only made on 30 October 2007. Therefore the Minister could not have made the decision based on scientific advice from his officials as the sequence of decision-making shows.

The court upheld the decision to close the fishery as the decision met the test of reasonableness. Further, it is not the courts function to second guess decisions taken by decision makers "*if these are reasonable both on their own terms and in relation to the reasons given for them if the decision will reasonably result in its ultimate goal of saving and rebuilding the resource*". This despite doubts that the court may have as to the viability of the suspension without a stringent and sustained anti-poaching drive.

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<sup>58</sup> Oscar Delmore Fisher (First Applicant) and The South African Abalone Industry Association (Second Applicant)

Section 16 of the MLRA does not specify the duration of suspension and given the wide terms of the Ministers powers in Section 16, it can be argued that the Ministers powers of suspension in a fishery are not limited as to time (Bozalek 2008). Section 14 (2) implies that having established a commercial abalone fishery and allocated rights that the Minister is required to determine a TAC on an annual basis and by implication was precluded from suspending the fishery indefinitely. However, Section 14 (5) states that the Minister shall not be prohibited from determining that the TAC shall be nil (Bozalek 2008).

### **5.1.5 Development of a Social Plan**

The vision of the Draft Strategic Plan for Sustainable Coastal Livelihoods, within the Sub-directorate: Sustainable Coastal Livelihoods is to provide sustainable alternative livelihood opportunities to poor fishing dependent communities by utilising marine and coastal resources and opportunities in a sustainable manner (EEU 2008; DEAT 2008b). Despite their mandate, the need to identify and develop alternatives specifically for fishers impacted by the ban was not discussed with the sub-directorate Sustainable Coastal Livelihoods (SCL) prior to or in the run up to the ban. Only once the decision had been made, was sub-directorate approached to develop potential alternative opportunities for rights holders. Further, only *“once the decision had been made, (did) we have to come up with the impacts and the suite of measures to give effect to the ban”* (ICM Official pers comm. 2008). Thus they started work on a Social Plan once the decision to close the fishery had been taken.

The reports documenting the decision to close the fishery (Maharaj *et al.* 2006, Maharaj *et al.* 2007, DEAT 2006) all mentioned the need to consider the socio-economic impacts and develop alternative livelihoods for rights holders affected by the closure. Maharaj *et al.* (2007) specifically states that alternative livelihoods should be identified *“in consultation with key stakeholders including commercial right(s) holders, coastal communities, fisher organisations, researchers and scientific, management and compliance working groups”*. Maharaj *et al.* (2007) also recognises the need for consultation and community buy-in during the process of rebuilding the fishery. These reports did not explicitly say that consultation should take place prior

to the closure decision but only that fishers should be involved in rebuilding the resource (Maharaj *et al.* 2006; Maharaj *et al.* 2006).

Further, a Report commissioned by DEAT in 2006 (*Final Report: evaluation of the current status of the abalone fishery*) included an assessment of alternative livelihoods. The report acknowledged socio-economic impacts associated with a possible closure and that alternative livelihoods would need to be identified to support rights holders (Daniels *et al.* 2006). The report identified short, medium and long-term interventions. Short-term interventions included the absorption of affected individuals into “law enforcement or monitoring activities”, the “Working for the Coast” program, the marine aquaculture industry and the utilisation of individuals and their equipment in boat based whale watching and shark cage diving. The consideration of boat based whale watching and shark cage diving would however require training and guidance. Medium-term interventions included a “livelihood assessment” to understand the impact of a possible closure on affected individuals, development of new abalone farms and inter-departmental collaboration to identify viable options and the creation of a task team to implement these. Long-term interventions included marine aquaculture and sea ranching, but these needed to be preceded by the development of a national aquaculture development policy, the development of a marine aquaculture sector development plan and the establishment of an inter-departmental co-operation forum. Both the national development policy and the development plan were presented to Cabinet in early 2007, after having been made available for comment in July 2006.

When the Minister announced the closure the fishery in October 2007, he also indicated that politicians had approved a Social Plan, which was to provide alternative employment opportunities for legal abalone fishers (South Africa.info 2007). To date however, no implementation of alternatives or even a ‘Social Plan’ has been forthcoming. This despite the documents produced prior to the closure.

Discussions with ICM officials revealed that a Social Plan or ‘detailed framework document’ was developed by the Directorate of Integrated Coastal Management (of which SCL is a sub-directorate), which described opportunities and constraints associated with various alternatives. Although certain aspects or elements of the plan,

which are within the mandate of the Department, will be taken forward; no Social Plan would be released by the Department (ICM Official pers comm. 2008). Portions of the Social Plan to be taken ahead include the development of an aqua-culture industry and the issuing of permits for whale watching and shark-cage diving (South Africa.info 2007; ICM Official pers comm. 2008). A Social Plan is usually put in place by an employer to safeguard the well being of employees. However, after several weeks of deliberations between the Ministers of DEAT and Labour, it was decided that the Social Plan was not suitable in this case and as it did not constitute a formal employer-employee relationship, and the Department of Labour pulled out. Further, the development of a Social Plan is not seen to be MCMs competence or expertise and is not considered relevant in this situation.

Despite ICM Officials saying that a Social Plan will not be released, a version of the Social Plan, which consists of 8 pages, was made public during the Court Case. A Social Plan applies “*in the event of threatening large-scale retrenchments as such retrenchment could have an impact on sector, regional or national interests*” (DEAT 2007b). Potential opportunities that were highlighted in the Social Plan in the short term included: boat based whale watching, shark cage diving and the sardine and anchovy fisheries, inclusion in the Working for Water and Coast Programmes, inclusion in existing marine aquaculture ventures and law enforcement activities, agricultural enterprises and compensation (DEAT 2007b). Medium to long-term opportunities included marine aquaculture, hiking trails, heritage tourism and agricultural opportunities (DEAT 2007b). The Social Plan seems to be based largely on the report mentioned above “*Final Report: evaluation of the current status of the abalone fishery*”. In addition to the identification of alternatives, the Social Plan lists potential stakeholders, including national, provincial and local government. Missing from the Social Plan is how MCM plans to implement the Social Plan and how they propose to engage with stakeholders. The sub-directorate SCL have liased with Tourism and various eco-tourism projects are proposed (ICM Official pers comm. 2008). This Social Plan document was incomplete and did not provide much information on how MCM was planning on putting in place alternatives for fishers.

The Promotion of Administrative Justice Act No 3 of 2000 requires public consultation on decisions that adversely affect peoples rights, however an

administrator may depart from this requirement where it is reasonable and justifiable (Maharaj *et al.* 2007). A Social Plan was developed in consultation with the Department of Labour but it was decided that a consultative process should not be followed with rights holders because of the fear that once plans to close the fishery became known, that illegal harvesting would escalate in order to “beat the deadline” (Augustyn 2008a). Also, consultation would have delayed the closure, which would have impacted negatively on the resource, and immediate closure, without consultation was necessary to protect the resource (Resource Management Official pers comm. 2008).

An ICM Official (pers comm. 2008) states that because of the perceived negative outcome of the decision; certain stakeholders (i.e. fishers) are saying a non-consultative approach was followed; even though “a lot more process was in place than the closure is given credit for”. According to a Resource Management Official (pers comm. 2008) the possibility of closure was discussed with the TURF representatives at Co-Management Working Group meetings with mixed responses. She claims that many did not want to accept the trend of resource decline; and further claims that MCM tried to engage with them regarding alternatives; but that they responded by overemphasizing their reliance on the resource and did not show much interest.

## **5.2 The Impacts and Implications of the closure of the fishery**

### **5.2.1 Stakeholders affected by the ban**

#### ***Fishers and their crew***

The fishers in Kleinmond are mostly small-scale fishers with limited commercial rights. The fishers interviewed for this study largely had a history of fishing, with most reporting that their fathers and grandfathers had been fishers. This study focused on abalone rights holders who depend on fishing for their livelihood and who received more than half, and sometimes all of their income, from fishing activities. Fishers in Kleinmond tend to be involved in fishing activities throughout the year, and the frequency and duration of harvesting is mainly influenced by the weather conditions.

The abalone industry is one which requires a large investment in equipment, and with the advent of the abalone policy many fishers incurred debts in order to purchase the necessary equipment. However, the investment in equipment is small given the return on the investment and therefore the fishery is relatively easy to enter. In addition, the vessels can also be used for other forms of fishing, i.e. linefishing or WCRL and thus vessels are often rented out. This is in contrast to other fishers, where the capital required is much greater, whilst the return on capital is much smaller. Section 4.5 above discusses the rights holders in more detail.

In addition to rights holders, another key stakeholder group that need to be considered are crew members, who will also be heavily impacted by the closure. Similar to rights holders, crew members are also traditionally associated with the fishing industry and “it is the only thing they know” and many spend their days catching fish with a hand line. One fisher indicated that his crew member had a WCRL quota of his own, but other crew members access marine resources mainly through recreational linefish and WCRL quotas.

### ***Abalone Processing Factories***

Abalone Processing Factories (APF) used to receive abalone quotas, but were phased out over a period of 3 years (as of the 2006/2007 season) with the implementation of the Abalone Policy (DEAT 2003) – thus whilst they still hold processing, marketing and exporting rights, they are no longer allocated an abalone quota. Consequently, divers (i.e. rights holders) were allocated a quota and deliver the abalone to the APF. There are 5 main Processing Factories in the area are: Tuna Marine; Walker Bay; OCAD; SPP Canning; and Combined Abalone (BlueStar Holdings).

Previously, Combined Abalone processed exclusively wild abalone, yet as a result of cuts in the TAC over the past few years (from 70 tonnes initially, to 9 tonnes in the final year) and a concern that the industry was going to be closed; they shifted their focus to WCRL. They expect to process in the region of 150 tonnes of WCRL this year. Infrastructure such as holding tanks and refrigeration used for abalone are easy to convert to WCRL processing and no major investment is required.



Similarly, Walker Bay Cannery Ltd was phased out of the abalone industry<sup>59</sup> in 2006/2007 and has also changed their focus to WCRL, as well as farmed abalone. They claim WCRL is not a viable option, as all the processors are now targeting this product and until recently there has only been 180T available in the area<sup>60</sup> and the TAC has been decreasing over the past 3 years. Further, there is not enough farmed abalone to supply all the factories. However, if the poaching can be decreased then WCRL could be a viable option in the future. In addition, many abalone farms are putting up their own processing and canning plants effectively decreasing the need for APFs. Currently, Walker Bay is doing research into alternative fish-related products. Walker Bay still processes confiscated abalone on behalf of MCM; yet state that less has been available since the closure.

SPP Canning has managed to shift their processing from wild to farmed abalone over the past 4 years, and now exclusively process farmed product. Since the processing of farmed abalone started, they have increased their staff, as it is more labour intensive. This is because the abalones are smaller and they have more abalone coming through the system, it takes more time to shuck the product. However, Groenewald (pers comm. 2008) maintains that small farms trying to get into the industry now will struggle although as long as the Chinese economy is doing well; there will be a market for abalone.

### ***Boat shops***

Rights holders from Kleinmond predominantly bought and serviced their equipment at Magson Marine in the Strand. Magson Marine sells and services commercial fishing boats and equipment. Since the closure, they have had a number of rights holders trying to sell their boats and equipment. Magson Marine has had few or no rights holders wanting to buy equipment, spares or bringing boats in for a service and have lost a lot of regular business due to the closure.

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<sup>59</sup> Went from 140T to 35T.

<sup>60</sup> Between 5 processors

### 5.2.2 Perceptions of stakeholders to the abalone ban

#### Rights holders

##### *Rationale for closure*

Interviews with rights holders indicate that they are of the opinion that the closure of abalone fishery is as result of MCMs inability to control poaching activities. Further they stated that when MCM allocated the 10-year rights, they should have had adequate enforcement and monitoring capacity in place (cf. 'enforcement developments').

##### *Transfer of pressure to other resources*

Rights holders believe that the diving ban will merely transfer pressure to those areas that are still open whilst others are of the opinion that a diving ban makes no difference to a poacher because enforcement officials cannot be everywhere at once. Further, the rights holders played a role in enforcement, as they would contact law enforcement if they witnessed poaching activities.

All fishers indicated that the closure of the abalone fishery is intensifying pressure on the West Coast Rock Lobster (WCRL) resource. Fishers indicate that rights holders, poachers and crew are forced to dive out WCRL in order to "keep going". In addition, fishers indicate that whilst abalone is still being harvested, WCRL is easier to access. Fishers noted that fewer and fewer WCRL are being caught, indicating that poaching must be intensifying. One fisher pointed out that he would usually catch 800kg-1 tonne per day in Zone D; but now has to spend a whole day on the water and only catches 9-30kg.

One fisher pointed out that poaching is part of the culture and not necessarily occurring due to the quotas being too small. He says that due to short-term thinking and poor money management; fishers take out a few WCRL and use the money to "keep going for a while". Only one fisher indicated that the closure of the fishery "can only have a positive impact".

There is a concern that poaching activity will continue and even increase now that the ban is in place. The opinion is shared amongst rights holders that poaching will be worse than before because people need money and abalone obtains a good price on the black market. As long as there is a market for abalone, people will take the risk to harvest abalone illegally. One fisher indicated that when the policing increased directly after the ban, poaching did decline; but as soon as policing 'eased up' poaching continued as per usual.

#### *Current state of the resource*

The response of fishers to the current state of the abalone resource was mixed. Most fishers felt that the resource is able to sustain a viable fishery and that it is not threatened. They claim researchers are "not looking properly" and that there are still many undiscovered beds of abalone. However, some do feel that the resource is threatened due to poaching, too many fishers for the resource to support, bad management on the part of MCM and a lack of enforcement.

#### *Compliance and Enforcement*

When it comes to compliance issues and poaching, fishers are adamant that policing and enforcement should be more visible. Currently, compliance officers need to be dispatched from Hermanus. The community should be able to report poaching to a satellite station, so that compliance officers can be more readily sent out. Fishers suggest that a rubber-duck should be allocated to the area, so that response time can be minimised.

Many compliance officers have little or no history of involvement with fishing, and thus know very little about the industry and often are unable to identify species. People with adequate experience and knowledge should be appointed. Fishers feel that there needs to be more cooperation between police, local monitors, compliance officers, MCM and the community with regards to resource protection.

### *General Crime*

Fishers are concerned that general crime, such as break-in's, will increase due to the ban, because of the drug-element inherent in poaching - many bag carriers and lookouts get paid in drugs. This concern was validated by MCS Officials who stated that house break-ins and other 'general' criminal activity has increased in the Overberg areas when increased patrolling over a period of 2-3 weeks prevents people from harvesting. Further, a FCO for Kleinmond claims that since the ban, there has been an increase in house breaks.

### **MCM**

MCM Officials were generally wary of giving opinions on the closure but many stated that the ban was "a long time coming" and that it was the "right thing for the resource".

### *Compliance and Enforcement*

Whilst the closure of the fishery and the dive ban may prove to be good deterrents, resulting in less poaching, a MCS Official (pers comm. 2008) did not think closing the fishery was the right decision. He highlights that the closure will result in a number of other problems. He highlighted that not only the quota holder is affected, but also his crew and even the factory worker who shucks the abalone may be left without a job. The official believes that instead of the ban, resources should have been allocated for enforcement to boost capacity. Then a trial period should have commenced, and if in that time poaching could not be controlled then the closure could have been implemented. Consequently, he believes rights holders are being punished; yet the poaching is not being addressed and there is "more abalone for the poacher". Further, enforcement measures need to be sustainable and need to have continuity. He also points out that a ban on harvesting will have no impact unless it is coupled with enforcement measures ensuring that the conditions of the closure and diving ban are being adhered to.

Immediately after the closure, enforcement presence was high and included the involvement of police and additional MCM officials. However, it has tapered off since and police withdrew on the 1<sup>st</sup> of June – mainly due to outbreaks of xenophobic violence and because marine resources are not their priority (MCS Official pers comm. 2008). SAPS do have an important role to play, as they are responsible for law enforcement in general.

#### *Transfer of pressure to other resources*

When MCM officials were asked whether the dive ban and fishery closure would be successful in decreasing poaching, responses varied. An ICM Official (pers comm. 2008) indicated that the diving ban at Cape Point was transferring the poaching of WCRL to Kommetjie and that there has been a shift in abalone poaching activity to other areas, particularly the Eastern Cape, for example at Dwesa-Cwebe (ICM Official pers comm. 2008). In addition, diving activity has increased between Kleinmond and Rooiels as this area is still open to diving (pers comm. Fishery Control Officer 2008). However, there has been a two-thirds decline in poaching in the Gansbaai-Quoin Point area (ICM Official pers comm. 2008) and an overall decline in poaching of 60% was estimated (MCS Official pers comm. 2008).

Research and MCS officials were firmly of the opinion that the success of the ban with regards to curbing poaching depended on the investment by government in enforcement; and unless enforcement efforts were significantly increased, the resource will continue to decline (Research Officials pers comm. 2008; MCS Official pers comm. 2008). However, officials do indicate that MCMs concentration of enforcement on key areas is a good use of limited resources. Another view is that change in a system is good and perhaps the drastic nature of the decision to close the fishery may serve as a “wake up call”.

A concern is that due to the high number of low income earners in coastal communities, there will always be poaching, and the attitude is often that getting caught is “bad luck” as opposed to “wrong”. Others feel it is too early to tell whether the ban will be successful in the long run (MCS Official pers comm. 2008; Resource Management Official pers comm. 2008).

### *Local law enforcement*

Local enforcement, including a Fishery Control Officer and a SeaWatch member, believe that the closure was the right decision. A member of SeaWatch (pers. comm. 2008) believes that fishers will always claim that the resource is abundant, but agrees that the fishery had to be closed to allow small populations to recover. A local FCO agrees but believes that the Kleinmond area should also have been included in the dive ban as the resource is still strong in some areas. He states that all rights holders poach and that with only 6 staff, it is difficult to patrol the entire area. A SeaWatch member (pers comm. 2008) states that poaching is on the increase due to the increase in the black market value of abalone as a result of the closure.

### *UCT Scientists*

A UCT Researcher believes the closure of the fishery was inappropriate. Firstly, it has broken any trust that had developed between the ASWG, MCM and rights holders. Secondly, the researcher does not believe the ban will decrease poaching because of the lack of policing. Third, the researcher stresses the importance of having a continuation of CPUE and other data for resource assessment purposes and that the closure prevents the collection of this data. Lastly, there are no longer “eyes on the water”. The researcher goes on to state however, that if MCM can stop poaching the fishery will be viable.

A social scientist based at UCT believes that other steps could have been taken instead of the fishery closure (UCT Researcher pers. comm. 2008). By virtue of the fact that the poaching is continuing suggests that government has a poor understanding of the drivers of illegal harvesting (UCT Researcher pers. comm. 2008). Rights holders can see that the closure is not addressing the problem of poaching.

### **5.2.3 Impacts and Implication of the ban**

#### **5.2.3.1 Loss of income and impact on livelihoods**

The closure of the fishery has resulted in a drastic loss of income for rights holders. Rights holders who only had an abalone quota were earning between R3500 and R8000, depending on their allocation. The loss of all or a substantial portion of their income has had numerous repercussions on the lifestyle of rights holders, particularly with regards to the education of their children. Impacts include transferring children to different schools or not being able to continue with tertiary education. Rights holders also raised concerns about basic needs, such as putting food on the table and paying their water and electricity bills. Fishers were visibly distraught when they discussed having to pay their debts or in relation to their familial responsibilities.

In addition to their role as the head of the household, rights holders consider themselves responsible for their crew and their immediate families through being their employer. The majority of rights holders provide their crew with work outside of the abalone season, such as gardening, painting or maintenance work. One fisher indicated that although he has always “kept his crew busy”, he can no longer afford to provide them with “other” work. Fishers did indicate that some crew work on the building sites and others are working on WCRL or other fishing boats; but that the income they received from abalone harvesting was a substantial contribution to their household income. Rights holders fear that crew would be tempted to steal, poach marine resources or become involved in other criminal activity. Further, there has been a tendency to resort to drug and alcohol abuse where people have lost jobs or sources of income. Two rights holders indicated that their crew are now involved in poaching activities out of necessity, as there are no other options available to them in Kleinmond.

Only one fisher went further to say that the local school, church and businesses are also impacted as a result of him having lost his quota, for instance, he can no longer give donations to the church.

Fishers feel that the abalone processing factories will not be impacted by the closure of the fishery since they had had time to look at other options to make up for the loss in income and are generally buying from commercial abalone farms in the area. However, smaller buyers, such as Ocean Star, have had to decrease their staff. One fisher indicated that his buyer also buys from the illegal fishers and as such will not be affected. However, profit margins have been affected, as abalone fetches a much higher price on the international market. Abalone fetches between \$50-55 per kilogram, whereas WCRL fetches in the region of \$23-24 per kilogram. Whilst Combined Abalone has not had to lay off any permanent staff, they are encouraging their seasonal staff to look for other work.

Another group of stakeholders that will be affected by the ban would be those selling and repairing diving equipment. Rights holders chiefly buy equipment from Magson Marine in the Strand but also support Anchor Marine (Salt River), Boat Anchor (Pardon Island) and Leons in Cape Town. Again, fishers' responses were mixed. Some indicated that boat shops would be impacted, as motors and diving equipment will no longer be needed. Others claim the impact will be negligible as boats are still in operation for linefish and WCRL; and that the poachers will still be purchasing goods. It is clear that there are smaller businesses that will be impacted by the closure.

#### **5.2.3.2 Impact on Lifestyles**

Many abalone rights holders were historically amongst the poor, yet due to years of involvement in the abalone fishery (some started out as divers for processing factories); they have managed to improve their standard of living. Abalone rights holders earned a reasonable income (prior to the closure) which has resulted in an improved socio-economic status.

Fishers have been involved in the harvesting of marine resources since a young age, and consider it to be an important part of their heritage. Most learned from their fathers and assisted them with fishing and providing for their family from about 14 years of age. As a result, many left school at a young age to pursue the "family businesses". The cultural aspect of fishing is particularly important, as most fishing and harvesting marine resources is an important part of their identity. Many claim that



“they are born fisherman and they will die fisherman”. This clearly indicates the strong ties to fishing activities, and the feelings of belonging, fulfilment and job satisfaction that cannot easily be replicated.

#### **5.2.3.3 Lack of identification of suitable alternatives**

The decision to close the fishery was top down and technocratic and there was a lack of consultation with rights holders regarding the way in which the closure should be implemented. Rights holders feel they are being punished for MCMs lack of ability to curb poaching and the closure has no support from rights holders. In addition, there was no consultation with rights holders with regards to possible alternative livelihood opportunities or feasibility studies to determine the suitability of the proposed alternatives in the local context. Further, at the time of the closure, there were no alternatives available for rights holders. Alternatives proposed are long term and require substantial financial investment. Rights holders have a lot of anger, resentment and mistrust toward MCM as a result of the way the decision was taken and because no plans were put in place to provide them with alternative income earning opportunities. Rights holders would have liked a phasing out period, similar to what had been given to the abalone processing factories. The failure to identify alternatives has resulted in many rights holders having no income as many only had an abalone allocation.

Some rights holders indicated that poaching of abalone and WCRL was occurring, but that many rights holders and crew had little alternative and were forced to resort to illegal activities to support their families and pay their debts. Rights holders feel as though they have been pushed aside by government and feel totally helpless.

The alternatives that were proposed by the Minister in his press statement are not particularly suitable for rights holders. Shark cage diving and boat based whale watching require substantial financial investment, whilst Working for the Coast will not provide a sufficient income for rights holders. Although rights holders do show an interest in abalone mariculture, this is a long-term plan and cannot provide rights holders with an immediate income.

#### **5.2.3.4 Alienation of fishers and disregard for the law**

The top down manner in which the decision was taken has resulted in rights holders harbouring animosity and mistrust towards MCM. From the court proceedings and interviews with rights holders, it is clear that many believe reports were tampered with and that MCM officials had been dishonest in certain circumstances. This is due to the lack of transparency of the decision and the fact that the ASWGs recommendation was not taken into account.

Fishers were informed of the closure along with the rest of the public via the radio, newspaper and television. Fishers were of the opinion that that they should have been consulted regarding the intention of the department to close the fishery and that they could at least have been notified in writing or through their TURF Reps of this intention. Fishers feel that the decision to close the fishery came without warning and was made without adequate consultation with the industry. Despite rumours of closure, rights holders still believe that they should have been consulted regarding any intentions to close the fishery. Thus closure without any consultation came as a huge shock. Abalone rights holders should have been informed and consulted regarding the intention to close the fishery. MCM should have arranged meetings in which they presented the findings of their research to support the closure and then stimulated discussion around this issue, allowing fishers to highlight their concerns and present their solutions. The top-down nature of the decision taken by the Minister has further alienated the industry and created animosity towards MCM. The fact that the fishery was closed without warning (cf. 'warning signs') and with no alternatives in place has left many fishers bitter and angry with MCM. They feel that they are being penalised for MCMs lack of enforcement capacity to protect the resource.

Instead of the closure, fishers suggest that the fishery should have been gradually closed over a period of a few years, during which alternative livelihood options for fishers could have been phased in. Alternative/s should have been in place when the fishery was closed. Alternatively, WCRL quotas could have been provided as an interim measure whilst alternatives were being formulated.

The nature of the decision making process and the resultant alienation of rights holders will significantly hamper the success of any future collaborative efforts, particularly the implementation of alternative livelihood initiatives. Right holders are sceptical and weary of being “let down” again. This alienation has also possibly led to many rights holders and crew poaching, as they do not regard the decision or the decision-making process as legitimate. This could be detrimental to the resource, as they may feel little responsibility or ownership over the resource now that they are no longer allowed to exercise their long-term rights.

#### **5.2.3.5 Psychological Impacts**

Rights holders generally felt “hopeless” and many were not sure where they were going to find money to pay their debts, or put food on the table. Rights holders are generally the bread winners and thus they are solely responsible for the financial stability of their household. Many were afraid that they would lose their house. These issues all impact of their sense of dignity and self-worth. As the sole income earner for their families, the decision to close the fishery and the lack of alternatives has left many rights holders concerned for the well being of their families and crew. Rights holders are most concerned about their children’s education.

The nature of the decision process and the lack of suitable alternatives for rights holders further illustrate the poor understanding of the cultural role of fishing for these rights holders and their crew. Rights holders and their crew are historically associated with marine resource harvesting and consider the sea to be “in their blood”. Rights holders are generally not willing to engage in alternatives outside of fishing, and many lack the skills and finances to do so. Thus although they possess all the skills necessary for resource harvesting and are good at what they do, they are unable to put these skills to use and this impacts on their feeling of worth. Being unable to provide for their family has left rights holders feeling anxious, bitter and helpless.

### **5.3 Potential alternatives to abalone harvesting**

#### **5.3.1 Alternatives proposed by Government**

Alternatives that were originally proposed by the Minister in his press statement included boat based whale watching and Shark Cage Diving. An ICM Official (pers comm. 2008) maintains that there is more opportunity for growth in the boat-based whale-watching sector, as shark cage diving is already saturated. An obstacle to getting involved in these industries is that there is the requirement to provide a quality service in 'high end' markets (ICM Official pers comm. 2008). There are also possibilities for mariculture development in the Gansbaai and Kleinmond areas but this would require capital and expertise (ICM Official pers comm. 2008).

There are currently two boat based whale watching operators in Hermanus, namely Southern Right Charters (SRC) and Hermanus Whale Watching (HWW). The consensus was that there is not much room for growth in the industry, particularly in Hermanus. This could be attributed to fears that current operators would lose business. However, it was indicated that there might be space for growth in the Gansbaai area. Boat-based whale watching requires a large financial investment. However, it was interesting to note that the perception existed that "fishers in dinghies would go chasing after whales" (SRC pers. comm. 2008). Further, SRC (pers comm. 2008) indicated that too many boats in an area could "scare" the whales or threaten their well being. Further, Hermanus Whale Watching felt that the Minister should not have raised expectations relating to the industry by indicating that there was room for new entrants as this has resulted in a false perception of the industry.

The owner of Hermanus Whale Watching used to be an abalone diver and explained how the boat-based whale watching industry was not easy to enter. Tour guide training courses are necessary as well as good financial management and an understanding of the quality of service required. He only realised returns on his investment after 8 years and indicated that many fishermen do not think "long-term". The boat-based whale watching industry is different to fishing, in that you do not immediately see returns for the work you have "put in" (HWW pers. Comm. 2008).

The Sustainable Coastal Livelihoods sub-directorate is responsible for identifying alternative opportunities for abalone rights holders. They admit that providing alternatives that are as lucrative as abalone will not be easy. They are of the opinion that abalone harvesting provides a lucrative income in relation to the time spent harvesting, and that perhaps other jobs would require more time to be spent working for the same income (ICM Official pers comm. 2008). Thus there is a perception amongst MCM officials that fishers are not willing to pursue alternatives that require year round work to obtain a sufficient income as opposed to getting a lump sum for a few days' work. An ICM Official (pers comm. 2008) feels that fishers are not willing to pursue the alternatives offered by MCM, perhaps for the reasons above.

The policy for boat-based whale watching is currently awaiting approval and current operators are running their operations under exemptions. Once the policy is approved, the permit application process will be opened and existing as well as new entrants can apply. First priority will be those fishers who lost abalone quotas; second, will be those fishers involved in fisheries where stocks are dwindling; third, those adjacent to MPAs and lastly new entrants. Those already operating in the industry will be issued with permits to continue to do so. Whale watching and shark cage diving operations are mostly in Cape Town, KwaZulu-Natal and the Eastern Cape. People are encouraged to join these industries, but there is recognition that many do not have the training, equipment and financial backing to get involved.

There is awareness on the part of the SCL sub directorate that alternative livelihood projects need to be context specific, and that blanket livelihood options would not be suitable for the entire coast.

An interview with a Resource Management Official indicated that MCM are now aware that their proposed alternatives are not entirely feasible. In terms of alternative livelihoods, MCM considered aquaculture, boat based whale watching, shark cage diving and enterprise opportunities within harbours. However, after some time it was realised that there were numerous problems with these proposals. Firstly, aquaculture is a medium to long-term initiative and could not serve the short-term needs of rights holders. Secondly, boat based whale watching and shark cage diving have little scope for including more people (Resource Management Official pers comm. 2008).

### 5.3.2 Alternatives proposed by Rights Holders

Interviews with fishers indicated that in terms of alternative occupations, fishers largely want to remain in the fishing or diving industries. The feeling amongst fishers is that “we are born fishermen and we will die fishermen”. Most would not change their occupation even if they could secure the same income. Some claim they are “too old to do something else” and were worried about “learning new skills from scratch”.

Alternative options (with the same monthly income) that were proposed during the focus group meetings and interviews, included working for an abalone factory or doing diving work. Abalone rights holders feel that MCM should be involved in the start up of an abalone farm, providing finance and skills training (such as management and accounting) to fishers, and that once the farm is “up and running” it should be transferred to the quota holders for them to manage. Fishers’ main concern regarding abalone farming is the initial start up period (up to 5 years) during which they will not be earning any income. They worry where their income will come from during this time.

A further concern is land availability for the construction of the abalone farm. Much of the land around Kleinmond is privately owned and this land will need to be bought (pers comm. Fredericks 2008). The construction phase will be labour-intensive, but the operational phase will not be. Further, an aquaculture venture is a long term “solution” and fishers are preoccupied with immediate needs, such as daily household expenses and paying debt. The abalone farm owned by Global Ocean at the harbour closed down recently, because it was too small to make a profit. Thirty permanent jobs were lost because of the closure. It is important to understand why ventures such as these failed so that future initiatives can avoid these.

In terms of getting more involved in the construction or building business, fishers highlighted concerns that building work is tapering off in the area, and that most developments have their own contractors. In addition, considering the time spent working and the remuneration; one fisher pointed out that he was not willing to work on a building site for a week, only to bring home R400. Abalone rights holders are

used to a “higher” standard of living and R1600 per month will not be comparable to what they were earning from abalone harvesting.

The two alternatives that were originally put forward by the Minister in his press statement, included shark cage diving and boat based whale watching. Fishers are wary of getting involved in well-established industries where the market is already saturated. To enter these industries with no prior experience or the financial means is seen as a large risk. The harbour at Kleinmond is in poor condition and has a reputation for being dangerous; and when the sea is rough, it is difficult to get through the harbour. Fishers are concerned about where they will land their boats in these conditions. Abalone rights holders are adamant that any alternative options should be geared towards those persons who do not have alternative means of employment<sup>61</sup>.

In general rights holders are of the opinion that there are few or no work opportunities in Kleinmond. In 2001, unemployment in Kleinmond was in the region of 22% (Overstrand IDP 2008/09), and it has increased to between 25 and 30% in 2007 (TV3 2007), with a figure of 76% in the Overhills settlements (Masifundise 2007). It is clear that work opportunities need to be created in this area.

As an interim measure to allow fishers to have an income whilst negotiations are underway between MCM and rights holders and alternatives are being investigated, some fishers suggest that areas such as Bird Island, Dyer Island, Verwoerd Reserve, Robben Island, Cape Point and Saldanha should be open to abalone harvesting over the short term. Fishers indicated in meetings with MCM (Resource Management Official pers comm. 2008) and with the author, that they wanted WCRL quotas as an alternative or as an interim measure. However, according to MCM scientists this resource is also declining and it is thus not feasible to allow new entrants.

### **5.3.3 Economic opportunities available in Kleinmond**

A number of economic initiatives were identified in Kleinmond during the research. Only those that are suitable for rights holders or their crew members are elaborate in below. Fishers were however unaware of organizations which are involved in

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<sup>61</sup> Meaning that those individuals who have alternative forms of employment outside of the fishing industry e.g. plumbing, should not be included.

identifying or supporting economic opportunities for fishers. In Kleinmond “we must do our own thing”.

There are very few alternative economic opportunities available for fishers in Kleinmond and this was confirmed by officials from the Chief Directorate: Social Responsibility, Policy and Projects (SRPP)<sup>62</sup> who claim that there are no poverty alleviation programs or projects in the Kleinmond area that have focused specifically on fishers. Further, fishers lack the capital to invest in other businesses, and even within the fishing and building industries; people from outside of Kleinmond are taking these jobs.

Initiatives currently underway in the Overstrand include:

(i) The development of economic spaces (beehive facilities) to promote enterprise development and promotion of the second economy to facilitate trading by making available infrastructure to assist in growing the second economy. In Kleinmond this initiative will take the form of a formalised market area in Proteadorp where local produce e.g. fish can be sold. Abalone rights holders who have access to other marine resources could potentially benefit from this infrastructure development by marketing their products here.

(ii) In terms of “Fishing Industry Sector Support” the IDP recognises the development of an aquaculture sector strategy, which includes the identification of suitable land and partnerships; and the development of harbours. Although the IDP recognises the need for “*aquaculture based economic initiatives to address the loss of quota’s to harvest abalone*”; a SWOT analysis<sup>63</sup> revealed that Kleinmond was the least suitable coastal town for marine aquaculture. A report, “*The Technical Viability and Opportunities for Aquaculture Development in the Overstrand Municipal Area*” which was commissioned by the Municipality, ranked Gansbaai as the most suitable

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<sup>62</sup> SRPP has been mandated to deal with the Expanded Public Works Programme within DEAT and are responsible for investing money for training and job creation in key focus areas, including (1) Working for the Coast; (2) People and Parks; (3) Sustainable Livelihoods and (4) Tourism.

<sup>63</sup> SWOT is an acronym for ‘Strengths, Weaknesses, Opportunities, Threats’ and is a form of analysis to evaluate, and in this case compare, a number of alternatives to determine which has, for example, the fewest ‘weaknesses’ and the most ‘strengths’.



area, followed by Hawston, Buffeljags and then Kleinmond (MAN Consulting Services 2008).

In addition, the following initiatives in Kleinmond have been identified as possible avenues for the initiation of alternative economic opportunities:

### ***Kleinmond Harbour Development***

The proposed Kleinmond Harbour Development is a collaborative effort between the Overstrand Municipality, Kleinmond Community Investment Holdings (representing the interests of the historically disadvantaged sector of Kleinmond) and Wharfside Developments. The project is supported by and has received funding from the Provincial Department of Economic Development and Tourism, as well as the Development Bank of South Africa.

The Harbour Development will include: the reconstruction of demolished historical structures, residential flats, public parking, business premises, a slipway and boat parking, public open space and an abalone hatchery. There is also a potential for a “fish market”<sup>64</sup> and residential units, which can be used for visitor accommodation and managed by local community members.

However, during discussions with members of the fishing community only one fisher identified the Harbour Development<sup>65</sup> as a potential economic opportunity. It is assumed that most fishers are aware of this development; but it is interesting to note that they do not consider it as a potential source of alternative income. This is most likely due to the fact that the development has been in the pipeline for 11 years, and as such initial enthusiasm or support for the development has waned. Further investigations indicated that another similar development is on the cards for the Kleinmond harbour. This development is known as the “Kleinmond Visbaai Harbour Redevelopment” and is limited to the redevelopment of demolished buildings to be utilised as restaurants, curio shops and a fresh fish market. This development has the support of certain members of the community and probably originated because of a lack of progress with the original development. This venture is being headed of

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<sup>64</sup> This could serve as a means to formalise the selling and marketing of marine resources.

<sup>65</sup> He also indicated that he was a member of the Harbour Development Committee

SAMD (South African Mariculture Developments). There is an indication that different factions in the community support the different developments and this need to be looked into.

### ***Mthimkhulu***

The Grail Centre Trust is an international body, which is focused on development and transformation processes and has been working in the Kleinmond community since 2001. The project they are currently running is known as Mthimkhulu, where they provide training and skills development, including Adult Basic Education and Training (ABET), Job Skills Development and Training and Small Business Development.

Although Mthimkhulu will be providing the Kleinmond Community with skills training, they are more focused on training unskilled persons so that they have the opportunity to enter the work force. Although Mthimkhulu can provide skills training, they cannot create work where there is not a demand for it. One of their biggest concerns is that there is a general lack of work opportunities, even for semi-skilled persons. This venture would be more suitable for crew members.

### ***Mariculture College and Multi-species Ranching***

There are plans for a Mariculture College on the Mthimkhulu site, which will serve the whole Overberg region. Here students would learn life skills as well as expertise in the field of mariculture. For practical experience, a multi-species<sup>66</sup> on shore hatchery is being proposed in Hawston, where stock will be bred for ranching activities along the coast (also based in Hawston). Ideally, a TURF system is proposed, so that individuals/ groups will have ownership over sections of the coast. The hatchery and ranching activities are aimed at a wide sector of the community i.e. from commercial divers and 'poachers', through to the "poorest of the poor".

The Chinese Academy of Fisheries Scientists is supplying the technology, and a 40ha portion of provincial land has been earmarked for the hatchery. The hatchery and

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<sup>66</sup> Including: abalone, scallop, sea cucumber, sea urchin, clam, giant periwinkle and limpet.

ranching activities will be realised through a joint venture between the South African Mariculture Development organization, Premier Fishing and Dalian Zhangzidao Fishery Group Co. Ltd (a Chinese Mariculture and Fisheries Company).

Recently, MCM has decided to allow ranching to take place on a “TURF” basis between Cape Hangklip and Hermanus. As yet there are no dates set for completion, but a number of meetings have been held with SAMD, MCM and rights holders and this seems to be a promising initiative. Business plans are in the process of being developed.

### ***Working for the Coast***

This is a national programme aimed at cleaning up the coast, rehabilitating degraded areas, repairing and maintaining public amenities, support of tourism, monitoring etc. This programme is implemented through the Expanded Public Works Programme which aims to alleviate poverty through the creation of temporary job opportunities, training and SMME development. There is a CoastCare Project planned from Strand to Quoin Point; in which fishers could get involved. CoastCare is moving away from ‘picking up paper’ toward infrastructure development e.g. walking trails, board walks. Due to its focus on temporary job provision; its suitability and relevance with regard to the creation of long term alternative livelihoods is questioned. This would be the ideal vehicle for crew members.

Whilst there are clearly a number of initiatives in the Kleinmond community, rights holders did not identify any of these as being suitable alternatives to abalone harvesting. To a large extent, these initiatives cannot supply rights holders with the income and lifestyle that they are accustomed to. Further, none of these initiatives are specifically aimed at fishers who have lost access to marine resources and fishers are generally overlooked in LED ventures. Further, rights holders are not considered to be the “poorest of the poor” and will be last in line to benefit from any economic development in Kleinmond, as others are seen to have a greater need. A number of initiatives are potentially suitable for crew members and other fishers who are harvesting resources illegally.

#### **5.3.4 Opportunities and constraints associated with pursuing alternative livelihoods and assets identified by rights holders**

When rights holders were asked to identify opportunities and constraints associated with pursuing alternative income earning opportunities most struggled to identify any opportunities. However, a number of constraints that would prevent them from getting involved in alternative livelihood opportunities were identified. This clearly indicates that rights holders are uncertain of their assets and are wary of getting involved in something that they are unfamiliar with. One fisher pointed out that if fishers are too enthusiastic about alternatives, they would be implemented at the cost of their existing quotas. Rights holders do not want to give up and they want to fight for what they believe they have a right to.

Rights holders stated that their lack of formal education is a stumbling block that prevents them from getting involved in a different occupation. Most rights holders did not finish school, as they started diving or catching fish with their fathers at about 14 years of age. Rights holders have expressed interest in abalone aquaculture, but they feel that they are not receiving the necessary technical expertise or financial support from government to take this forward (EEU 2008).

Rights holders do not have access to sufficient financial capital to invest in other business opportunities. Rights holders have made substantial investments in equipment, which are worthless now as they cannot be used or sold, and many have debts to repay. Further, initiatives such as mariculture require a large capital investment, which is unrealistic for most fishers.

Mistrust between MCM and rights holders is a major constraint to economic development or alternative livelihood provision in Kleinmond. Fishers complain that MCM never wants to communicate directly with them or listen to their concerns. MCM always sends consultants on their behalf to deal with the community. Rights holders are also concerned that research conducted is tampered with before reaching the Minister. Whilst fishers have made repeated attempts to get involved in research, MCM does not seem to be interested. Fishers also question the validity of the research that has been conducted to determine the state of the resource. They claim research

was done by people who did not know the area well, and even though fishers offered to become involved, their offers were ignored. This lack of trust between MCM and fishers will hamper future research.

Key informants identified further constraints. Firstly, conflict within the community between different factions has resulted in vested interests impacting negatively on broader community benefit. This tension in the community is mostly due to what is perceived to be an unfair rights allocation process. Consequently many *bona fide* fishers have been excluded, whilst new entrants have large or more than one quota. Personal agenda's are also impacting negatively on the permit allocation system, as those who are better educated and well connected are benefiting.

Secondly, an ICM Official (pers. comm. 2008) indicated that whilst MCM would facilitate entry into aquaculture, whale watching and shark cage diving, MCM would not be able to fund these initiatives. In other words, MCM is not able to provide tangible support in terms of training, skills development or facilitating access to credit. They are only identifying and suggesting alternatives. This coupled with rights holders' lack of access to financial capital and training, may result in few initiatives being realised.

Further discussion with fishers revealed that they did not see many opportunities in the Kleinmond area in which they could get involved, but did identify the following assets that could help them to become involved in an alternative income earning opportunity.

Fishers have a vast amount of practical experience and knowledge regarding the sea - which should be seen as their greatest asset when getting involved in other livelihood options. Skills such as diving could be put to use by teaching others how to dive, for example as a scuba diving instructor or by getting involved in underwater welding. Knowledge and experience of the sea could be put to use, for example by taking people out to sea;

Abalone rights holders also feel their familiarity with abalone will stand them in good stead if they were to become involved in abalone farming. Fishers are concerned that

getting involved in an abalone farm is a long term plan, yet at the moment they are preoccupied with their present needs – which cannot be met by an abalone farm or any other alternative which will only be fruitful in a few years

### **5.3.5 Willingness of rights holders to pursue alternatives**

Rights holders love their work and derive satisfaction from fishing related activities, which another job may be unable to provide. Fishers explain of the excitement of discovering a new bed of abalone, of diving with friends and being able to learn new “things” everyday, whilst at the same time being able to teach others. A particularly important aspect of their work is “being their own boss” and to not have anyone telling them “what to do or how to do it” - because they are good at what they do. For many, being on the water is relaxing and it is a place where no one bothers them and where they are at their most content. These are intangible feelings of job satisfaction, which cannot easily be replicated by offering fishers alternative forms of income, specifically if not related to fishing. Many feel that their knowledge and expertise as it related to the sea is their greatest asset (EEU 2008).

Job satisfaction is an important element of the fishers ‘job’ and stems from the fact that they are good at what they do, and have been doing it all their lives. Many fishers would not change their jobs if offered an alternative that provided the same income. Reasons for not wanting to change their occupation include: being too old to do something else and having to learn new skills ‘from scratch’.

However, some fishers are open to the idea of changing their occupation, as long as it is still related to the sea, and if MCM can guarantee that it will be a secure form of income. Those that recognise that the fishery may be closed for good are open to the idea, but only because they have no other choice. Fishers were generally reluctant to explore alternatives that took them away from the sea. Fishers are most willing to explore aquaculture initiatives, to obtain access to WCRL quotas, or to pursue diving related work (research, commercial diving, underwater welding, diving instructor).

There is a lot of frustration due to the fact that alternatives were not explored sooner. “They expect us to come up with ideas and then they will take our proposals to the

Deputy-Director General. Why didn't they tell us they didn't have a plan?" Those fishers that have done some research into alternatives are concerned that whale watching and shark cage diving both require long term and substantial financial investments. Further, they are concerned about who will benefit, as there is not space for all the rights holders in these industries.

### **5.3.6 Perceptions regarding who is responsible for alternative livelihood provision**

#### *Fishers*

Interviews with fishers indicated that they consider government to have a major role to play in identifying and supporting alternative economic opportunities for fishers. They believe that MCM and rights holders should work together and discuss ideas relating to alternatives and solutions to the current situation. MCM should provide the financial means to allow fishers to become involved in alternative income earning opportunities. Fishers are of the opinion that MCM is chiefly responsible and did not perceive any other government departments to have a role.

They believe that MCM should establish an abalone farm or provide the finances to set up the farm. Further, they should provide the necessary training in order for fishers to manage and operate the farm. MCM should be involved and share responsibility for the development of any venture, particularly during the start up of an abalone farm. Only once it is clear that the fishers have the necessary skills to run the farm, should MCM "pull out".

Abalone rights holders feel that they still have rights until 2014 and therefore lay claim to the resource - fishers feel that they are owed the remainder of their long-term right and MCM should pay them the value of the remaining time. Then once the resource has recovered, they feel they should be allowed to harvest abalone again with a proper co-management system in place.

## MCM

MCM officials are generally of the opinion that the provision and support for alternative livelihoods is not the responsibility of DEAT: MCM. Reasons given include that MCM lacks the infrastructure and expertise to deal with alternative livelihoods (MCS Official pers comm. 2008) and that officials feel that MCMs mandate is to sustainably manage resources and that alternative livelihoods is beyond the core responsibility of MCM (Resource Management Official pers comm. 2008; ICM Official pers comm. 2008). There are other departments who are geared toward the provision and or identification of employment opportunities and MCM can assist in so far as employment options are marine related e.g. mariculture (Research Official pers comm. 2008). A Research Official (pers comm. 2008) did however indicate that MCM should play a role in identifying alternatives in collaboration with communities and that in addition MCM has a role to play in bringing on board other government departments. The Resource Management Official (pers comm. 2008) feels that government at large is responsible owing to that fact that the decision was not taken by MCM; but by Cabinet – and feels that MCM does not have the expertise to act as lead agency.

The SCL sub-directorate was created to identify alternative opportunities (livelihoods) to marine resource harvesting in coastal communities. Yet in reality, the sub-directorate identifies possible opportunities and assists only in so far as supplying fishers with the criteria needed to get involved and assisting them with the rights allocation process by providing information e.g. information session on a new policy. “We do not assist anyone to get involved in the alternative livelihood opportunities” (ICM Official pers comm. 2008). An ICM Official (pers comm. 2008) feels that fishers themselves are responsible for their future and they should have made provisions. She goes on to state that fishers are self-employed and thus DEAT is not responsible to them, as MCM cannot control nature.

The SCL sub-directorate is a new unit within MCM and this is the first time that MCM has attempted to embrace socio-economic and livelihood issues. As a result, there is still much uncertainty regarding the mandate of the sub-directorate as MCM has little experience with regard to socio-economic and alternative livelihood issues.



It is clear that government had a limited understanding of what the implementation of alternative livelihoods would entail. Alternative livelihood implementation is a long term process that requires the buy-in of communities and the commitment of government. Apart from funding, livelihood implementation requires training, capacity building and ultimately empowerment. The social and economic exclusion of fishers continues today and many still lack access to resources as well as the capacity to develop alternative livelihoods (Masifundise 2006).

Although there seems to be consensus as to whose responsibility it is not; MCM officials do not have a clear idea of who should be responsible.

### SRPP

SRPP specialise in project management and they will likely manage implementation of any abalone farming initiatives. Currently mariculture is the responsibility of MCM; However, Mariculture will most likely become the responsibility of SRPP in the future.

With regards to the provision of alternative livelihoods, the government departments that need to be involved will have to be determined on a project-by-project basis, as each project will require different expertise. DEAT: MCM should play a leading role, but should not be the only role player. Potential role players include: MCM, SRPP, Labour, Health, Social Services, Economic Affairs and Government created institutions that deal with economic development. Obstacles include: getting role-players “around the table”; the lack of neutrality in the public service (DA vs. ANC); and the ineffectiveness of current institutional arrangements.

In terms of government policy, economic development is largely devolved to Provincial and Local government. Provinces have Provincial Growth and Development Plans, whilst Local Governments have Integrated Development Plans (IDPs). IDPs promote actual projects and thus SRPP should link to Provincial and Local Government to fund and manage specific livelihood initiatives and projects.

## **6. Discussion**

This thesis has looked at the decision making process that culminated in the closure of the fishery, the impact of the closure on the rights holders as well as possible alternative livelihood opportunities that could be explored.

### **6.1 Recognising the cultural context of fishing**

For abalone rights holders and their crew, fishing activities are an integral part of daily life. Most have been involved in fishing activities since a young age, and many left school to assist their fathers with fishing and harvesting of marine resources. Whilst some rights holders and their crew are involved in non-marine related activities, the majority have always made their living from the sea. When discussing possible alternatives with rights holders, all would rather pursue alternatives that did not remove them entirely from the sea or from fishing. It is thus important to recognise that the harvesting of marine resources is a livelihood strategy integral to the cultural identity of these rights holders and their crew (EEU 2008). Rights holders enjoy fishing and it provides them with a sense of fulfilment and satisfaction, which they may not easily find in another occupation (Cinner and Pollnac 2004).

The development of alternative livelihoods for fishers needs to be sensitive to their traditional and cultural attachment to the sea (EEU 2008). Thus, it is suggested that in order to relieve pressure on marine resources, measures should be designed around the concept of complementary rather than alternative livelihoods (EEU 2008). This concept may be more acceptable to fishers, as they will not be totally removed from participating in fishing activities, and will at the same time acquire skills in a different occupation. Complementary livelihood activities may over time replace some fishing related activities, but this should be in consultation with fishers (EEU 2008). In addition, fishers will feel more confident to pursue non-fishing related activities over time as they will have developed confidence in their ability to perform other activities.

A study conducted by the Environmental Evaluation Unit emphasised that a blanket approach to the implementation of alternative livelihoods cannot be applied (EEU 2008). They highlighted that the relationship between resource users and marine

resources differs between communities and that this is informed by their socio-economic circumstances as well as their historical and cultural involvement with fishing (EEU 2008). Thus some coastal communities will have much stronger cultural and historical links to fishing than others. In addition, abalone rights holders are involved in the harvesting of a lucrative resource, which is a factor in their reluctance to stop harvesting all together.

## **6.2 Need to adopt an holistic and integrated approach to small-scale fisheries management**

South African is signatory to a number of international conventions and agreements regarding the management of the sea and coast (EEU 2008). All of them refer to the need for an integrated approach to management of the marine and coastal environment. The UN FAO Code of Conduct encourages States to take into account economic, social and cultural factors in decision making. The SADC Protocol on Fisheries requires a balance between social and economic objectives in fisheries management. The NEMA also states that the social, economic and environmental impacts of activities must be considered and that decisions must be appropriate in the light of these considerations. Further, the White Paper promotes a people-centred approach and a management style that involves integration and cooperation across disciplines, sectors and interests thus transcending legislative boundaries (Hauck and Sowman 2003; Witbooi 2006).

It is clear from this study that in South Africa, management decisions pertaining to the marine and coastal environment are still centralised and science based, with very little concern for the socio-economic or cultural context of coastal communities (EEU 2008; Hauck 2008). This resource-based approach indicates a lack of understanding regarding the links between effective resource management and addressing the socio-economic problems facing coastal communities (EEU 2008).

Firstly, there is a need to incorporate socio-economic information as relevant to the particular context into fisheries management decisions (EEU 2008; Hauck 2008). Secondly, fisheries managers need to understand that the long term protection and management of marine resources can only be achieved by addressing the socio-

economic difficulties facing fishing communities (EEU 2008). As long as coastal communities experience high rates of unemployment and poverty, there will be illegal harvesting of marine resources (Research Official pers comm. 2008). A vital role MCM must therefore fulfil is the identification and implementation of alternative or complementary livelihoods. This will decrease the reliance of coastal communities on marine resources, and thus the overall pressure on marine resources.

Another major factor is the reluctance of MCM fisheries scientists to engage with socio-economic and cultural dimensions related to fisheries management (EEU 2008). During the post-democratic transition, there was a lack of fisheries policy and analysis within MCM. At this time, few officials had experience in policy making and implementation and resource management continued as previously – despite the imperative to redistribute rights and broaden access. To this day, few MCM officials realise that social and economic goals need to be incorporated into fisheries management and decision making. As a result, the top-down style of managing fisheries has persisted through 14 years of post-democratic policy making. Consequently, a shift in thinking towards a more holistic approach to resource management is required, one that is not solely based on the biological sciences, but also includes the social sciences. Fisheries management decisions are currently being made by fisheries scientists and managers, who often fail to consider the social, cultural and economic implications of their decisions (EEU 2008). Thus whilst decisions are biologically sound, they often fail to take into account the relationship between fishers and marine resources (EEU 2008). Further, fisheries management considers its function to be the determination of quotas, bag limits, gear limitations and fishing seasons; and that socio-economic issues are the responsibility of a different directorate or government department (EEU 2008). However, fisheries managers need to realise that in order to manage resources sustainably, they also need to engage with resource users. Without the consideration of socio-economic factors, which impact on resource use, management will not be effective in ensuring the sustainable utilisation of marine resources.

### **6.3 Lack of Participation in management and decision-making**

The world over there has been a tendency to move from top-down to more collaborative and participative decision-making processes. South African laws and policies highlight the need to involve resource users and other stakeholders in decisions that will impact on their lives. Further, various pieces of legislation require transparency, consultation and participatory governance (EEU 2008). The UN FAO Code of Conduct encourages States to promote participation in management processes by those affected. One of the principles of NEMA is the equitable participation and inclusion of interested and affected parties in environmental governance. Further, “broad and accountable participation” of resource users and relevant stakeholders in fisheries management has been stressed in the fisheries White Paper and the Marine Living Resources Act. Further, the White Paper for Sustainable Coastal Development adopts a participatory and cooperative management approach. Feedback from fishers and other stakeholders indicates that this has not been the case in the abalone fishery.

The need for participatory management, particularly in small-scale fisheries, has been documented for over a decade in South Africa, and much longer internationally (Pomeroy and Berkes 1997; Hauck and Sweijd 1999; Hauck and Sowman 2003; Jentoft 2006; EEU 2008). There is a need to develop or strengthen existing local level structures that can provide a forum for fishers and government to interact (EEU 2008). Further, the lack of a participatory approach can in part be due to capacity constraints within MCM (EEU 2008). A Resource Management Official indicated that a lack of capacity and resources prevents her from spending time “on the ground” and that she considers this to be an obstacle to effective resource management.

In recent years, the concept of shared responsibility between stakeholders has become a widely accepted approach to managing small-scale fisheries (Hauck 2006). The Abalone Policy although giving lip service to co-management has not resulted in any “real” shared responsibility or delegation of powers to resource users in the management of the abalone resource (Hauck 2006). The transformation of the abalone fishery (Refer to Section 4.1) was a serious attempt by MCM to apply the objectives of the Marine Living Resources Act (namely sustainability, equity and stability), but it failed because they did not adjust their management framework to devolve power and

decision making to rights holders. Thus, despite attending scientific working group meetings and the implementation of the TURF based system in 2003, rights holders have not participated meaningfully in the management of the abalone resource. The implementation of the TURF system was ineffective due to the sharing of zones between rights holders from different areas, as well as the lack of skills and will within MCM to 'make it work'. There was also a lack of consultation and engagement with stakeholders in order to develop meaningful co-management arrangements. Without education and capacity building to instil a sense of ownership and protection over resources, management systems will not be effective. Further, fishers need to be trained and empowered so as to enable them to participate effectively. This is explicitly laid out in NEMA Section 2 (4) (f).

Although a number policies and laws highlight the need for participation in management and decision-making it seems this has not been the case in the abalone fishery. The lack of a participative approach can be attributed in part to capacity constraints, but also to the lack of willingness on the part of fisheries scientists to engage with socio-economic and cultural issues relating to resource management (EEU 2008).

The co-management continuum provides the perfect 'tool' through which fishers can become involved in management and decision-making. Responsibility is devolved based on the ability of stakeholders; and over time, as capacity is built and skills transferred, fishers can start assuming more and more responsibility (Hara 2003; Hauck and Sowman 2003; Symes and Phillipson 1999). Enhancing the capacity of user groups to assume co-management responsibility does however take time, effort and finances (Hara 2003; Frangoudes *et al.* 2008). The building of trust will take time, particularly in the abalone fishery, yet is vital as co-management is based on mutual respect and trust and each stakeholder must respect the autonomy of the other/s (Hara 2003; Symes and Phillipson 1999).

The involvement of resource users in the management of fisheries is key to ensure buy in and compliance (Hauck 2006). There is also recognition of the benefits of including rights holders in the research process. Not only does this develop skills and build capacity, it encourages ongoing collaboration between stakeholders, acceptance

of the research findings and increases stewardship over the resource (Hauck 2006). Rights holders have on numerous occasions requested to be involved in research and have offered their time and equipment. Had fishers been involved in research as they had requested many times, the research results would have had more legitimacy amongst rights holders.

The top-down nature of the decision to close the fishery, further highlights the lack of participation on the part of rights holders in resource management decisions. Rights holders were not adequately consulted regarding the decision to close the fishery and played no role in the decision-making process relating to the closure. As a result, the closure of the fishery has no 'buy in' from rights holders. Despite having information and recommendations relating to the socio-economic implications of a possible closure, very little was done by MCM to put in place effective mechanisms to prevent these. Hauck (2006) stressed that any scenarios relating to the management of the fishery should to be discussed and negotiated with key stakeholders from the outset, as this would facilitate 'buy-in' as well as the exploration of other possibilities.

### **6.3.1 Implications of the decision process**

The nature of the decision making process was top down, secretive and based predominantly on the biological sciences. This is contrary to the participative approach which is required by South African laws and policies, as well as to the approaches being advocated at an international level. The decision was largely informed by fisheries scientists in MCMs Research Directorate, who tend to have a largely conservation-orientated view. MCMs mandate is to ensure the sustainable use and management of resources but they failed to take a holistic perspective, specifically with regards to the consideration of socio-economic factors.

There is a growing awareness of the benefits of including local user groups in management and decision-making and that this can lead to better management (Beem 2007). These include: better information about the resource, including local knowledge suited to the context and broadening the amount of knowledge that would influence decisions; improved compliance with management protocols due to support and greater perceived procedural legitimacy from users as a result of their

involvement and in turn, buy-in from the people they are trying to regulate decreases transaction costs<sup>67</sup> (Hauck and Sowman 2001; Hara 2003; van Sittert 2003; Defeo and Castilla 2005; Beem 2007; Berghöfer *et al.* 2008).

However, Rights holders in Kleinmond have a considerable amount of mistrust and animosity toward MCM – which will hamper any co-management initiatives. In turn, MCM officials are unsure if all rights holders comply with their permit conditions. Any future co-management initiatives as well as the implementation of alternatives will be significantly hampered due to the level of mistrust that has resulted from the way in which the decision was taken. Rights holders are of the opinion that MCM underestimates their abilities and does not perceive their contributions to be valuable and therefore MCM does not consult with them. Alienation of resource users and other stakeholders will increase the animosity that currently exists towards MCM. Rights holders feel that they are being punished for the activities of illegal fishers and the inability of MCM to control poaching.

A number of implications of a top-down decision to close the fishery were highlighted by Hauck (2006), in a report that was made available to MCM prior to the closure. Many of these have since “come true”. Apart from the alienation of rights holders, legal fishers may protest the decision by continuing to harvest abalone illegally (Hauck 2006). This may be more of necessity than a choice for some, who need an income to pay day-to-day household costs. Protest fishing may have severe impacts on the resource in certain areas. Hauck and Bürgener (2007) pointed out that unless rights holders are involved in the discussions and decisions regarding the abalone crisis there is unlikely to be support and buy-in for the decision or the rebuilding of the resource.

Additional impacts of the decision include the fact that the closure may increase the demand, and thus the price, for illegal abalone (Hauck 2006). This in turn increases the incentive to poach. Similarly, during a 3-year ban on the loco, *Concholepas concholepas*, in Chile, the illegal fishery was exacerbated due to the increased price for the product on the black market (Hauck 2006). Further, key long-term data for

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<sup>67</sup> i.e. the time, money and manpower that is usually spent on enforcement, control, monitoring and surveillance



scientists to monitor the status of the resource will be lost (UCT Researcher 2 pers comm. 2008).

It seems that the closure is less about a declining resource, and more about a lack of capacity and know-how to effectively curb poaching. However, closing the legal fishery will not prevent the large-scale illegal harvesting of abalone. The government lack a long-term strategy to manage the fishery and have a poor understanding of the drivers of illegal trade (Bürgener and Hauck 2007). Management of the resource has been focused on policing at the expense of co-management arrangements, despite the fact that the collaborative management of marine resource is highlighted in numerous international agreements as well as local policy. Experience has shown that law enforcement initiatives in South Africa cannot be sustained for long periods of time, and that illegal fishing continues as soon as policing effort decreases. Whilst the ban will only be successful if supported by an adequate policing strategy this should not be in place of the development of a collaborative agreement between stakeholders regarding the way forward.

Even though the Minister had the right to declare a zero TAC for the abalone fishery in terms of the provisions in NEMA and MLRA, the decision making process should have been participative rather than a top down decision by senior government officials. Further, the Right of Access to Information Clause and the Promotion of Access to Information Act (PAIA) are relevant as they are useful for determining how decisions were reached, for instance how the TAC was determined and portions allocated (Witbooi 2006). Further, both the NEMA and MLRA contain sections that relate to the right to access to information and transparency, respectively (Witbooi 2006).

### **6.3.2 The development of a Social Plan and Alternatives**

The Social Plan that was developed (but not released) was prepared without consultation with rights holders and secrecy remains regarding the contents of this Social Plan. This, despite the fact that the Minister claimed to have a Social Plan in place for rights holders affected by the closure.

Due to the lack of consultation with rights holders, the alternatives proposed were not suitable or feasible when taking into consideration the assets of rights holders or the local context. Alternatives proposed required large capital investment and goes against the recommendations of the Sustainable Coastal Livelihoods Framework, which highlights the importance of working with the assets that fishers have access to as opposed to concentrating on what they do not have.

There has been a lot of ‘talk’ about alternatives, but in reality identifying a possible alternative livelihood is only the very beginning of a very lengthy process. There follows a process of investigating whether the alternative is feasible; whether there is a skills match; whether the required capital is available; and eventually the drawing up of a business plan.

#### **6.4 Application of the Sustainable Livelihoods Framework to the case study**

The Sustainable Livelihoods Framework (SLF) was developed as a tool to help gain a better understanding and aid analysis of the livelihoods of the poor, and to allow holistic thinking about livelihoods that orders the complexity of the various factors (DFID 1999; Allison and Ellis 2001). If management or other forms of intervention are based on an incomplete understanding of livelihoods, it can result in recommendations that are incompatible with resource conservation as well as the social and economic goals of management (Allison and Ellis 2001). The SLF can be useful in assisting in the identification of the various factors that influence livelihoods. Governance (i.e. policies and institutions) plays an important role in livelihoods and determines access to capital and livelihood options and the SLF can help in the identification of those factors that inhibit or facilitate access to assets and thus to livelihoods strategies. Decentralization and participation is essential to successful resource management, whilst top down management practices are not responsive to trends and shocks, and lack adaptability.

##### **6.4.1 Livelihood diversification versus specialization**

A livelihood is composed of the assets, the activities and the access to these that together determine the livelihood strategy employed by the individual or household.

Poor people often pursue a diversified livelihood strategy, as this provides security and resilience in the event that one activity should fail. Diversified livelihoods thus often cope better with shocks and stresses and are less vulnerable as risks are spread across more than one activity (EEU 2008). In the case of the abalone fishery, rights holders were encouraged to specialise by investing in equipment and as a result few have other activities to fall back on. Some of the equipment is specifically for abalone harvesting, such as a compressor. Although some abalone rights holders also have WCRL quotas, the TAC has been decreasing over the past 3 years, and there are legitimate fears that this fishery may too be closed in the near future. The government encourages rights holders to invest in the industry and allocated rights for 10 years. Due to the lucrative nature of the resource, it also was not necessary for rights holders to diversify. This illustrates how government policies, particularly the Abalone Policy, have resulted in livelihoods which are not resilient to external shocks and trends. Instead, policies should be encouraging livelihood diversification, both within and outside of the fisheries sector, thus increasing the resilience of livelihoods and decreasing the dependence on marine resources.

Diversified livelihoods can further be beneficial to resource protection (Allison and Ellis 2001) and should be encouraged over specialization. Policies should encourage part-time fishing instead of trying to professionalise small-scale fishers and ban part-timers (Allison and Ellis 2001). The promotion of specialization by investing in capital-intensive technologies or assets will result in part-time fishers becoming full-time fishers, as they have loans to repay and need a return on their investment (Allison and Ellis 2001). As a result, fishers become more reliant on fishing, and during times of resource scarcity they will be less likely to revert to non-fisheries based livelihoods – this can have a negative impact on the resource as they will continue to harvest (Allison and Ellis 2001). Diverse sources of income can potentially buffer people in the event of one activity failing (Sievanen *et al.* 2005). If a wide range of assets is drawn upon, it can minimise susceptibility to shocks and minimise poverty (Glavovic *et al.* 2002).

Further, interviews with scientists indicated that there has been concern over the state of the abalone resource for many years, presumably even before the implementation

of long term rights. Why then were fishers encouraged to invest in an industry that was considered to be in some form of 'crisis'?

Whilst the White Paper on Sustainable Coastal Development encourages the diversification of coastal economies and opportunities, the 2003 Abalone Policy encouraged abalone fishers to invest in the industry and encouraged specialization. This is not inline with international thinking, which encourages livelihood diversification (particularly in non-industrialised nations) and thus resilience to stresses, trends and shocks, such as resource decline or fishery closure.

#### **6.4.2 Skills and assets**

Rights holders had difficulty when asked to identify their assets, with most considering their knowledge of the sea and diving skills as their biggest assets. In order to strengthen the 'asset platform' Allison and Horemans (2006) list numerous interventions. Thus to strengthen each of the five identified capital assets, the following is necessary: human – skills training and education; natural – rehabilitation of degraded environments; assisting communities to use their resources more sustainably; financial – improved access to credit and savings mechanisms; physical – improved access to infrastructure; and social – strengthening of community organization skills; building trust; and the inclusion of marginalised groups. These are all relevant to the Kleinmond community. In order for fishers to get involved in alternative livelihoods, they require training and education. This will give them confidence and a better chance of succeeding at new ventures. If the abalone fishery is to be reopened in the future, fishers should be involved in the protection of the resource to allow recovery. This in turn will lead to feeling of ownership. A problem that was highlighted by many fishers was poor money management skills, thus access to saving mechanisms and financial education is vital. Lastly, by building trust and including marginalised groups, you are reducing the conflict in the community and encouraging buy in – be this in terms of the protection of the resource or the implementation of alternatives.

It is clear from interviews with abalone rights holders that they would be more interested in alternatives that did not remove them entirely from the sea. Rights

holders were sceptical and hesitant to become involved in alternatives that did not utilise their existing skills. Some were afraid of “trying new things” or learning “from scratch”. Thus activities that built on, or utilised existing skills would have a greater chance of buy-in and success (EEU 2008). Fishers considered one of their biggest challenges to getting involved in alternative livelihoods to be their lack of formal education. Their greatest asset was considered to be their knowledge of the coast, the sea and the abalone resource.

The alternatives suggested by the Minister were not well researched and were identified without an understanding of the context, peoples’ assets and interests. Some rights holders feel that they are too old to do something else. Alternatives suggested by fishers include diving work or being involved in the operation of an abalone factory. These two alternatives indicate clearly that fishers want to be involved in economic opportunities in which they have skills and knowledge. This supports the view that alternatives need to be tailored to the needs of the community and should focus on what assets fishers have – rather than what they do not have (Allison and Ellis 2001).

## **6.5 Alternative livelihoods**

Alternative livelihoods that are developed need to provide some of the same job satisfactions as fishing (Cinner and Pollnac 2004). Rights holders spoke passionately about fishing and that it is “in their blood”. Rights holders show most interest in those activities that are related to abalone and that do not remove them entirely from the sea.

However, whilst mariculture is an alternative suggested by government and the most supported by rights holders, it does not come without problems. Low levels of education, lack of experience, poor technical support and a lack of access to capital are challenges to the successful implementation of aquaculture ventures (Van Hue and Scott 2007). Careful consideration must be given to the distribution of benefits from aquaculture initiatives and the local context must be taken into account (Van Hue and Scott). In Kleinmond, where tensions already exist between those who have and those who do not have rights to access marine resources, a mariculture initiative that only

benefits the local elite, may cause more tension. Successful ventures also attract outsiders and this needs to be controlled (Sievanen *et al.* 2005).

In reality however, abalone fishers lack the skills to be “aquaculture entrepreneurs” and would most likely be employees in capital intensive aquaculture projects. Abalone ranching, however, creates an opportunity for abalone fishers’ skills to be used in rehabilitating depleted abalone beds in a model similar to fishing. These would be true TURFs, with guaranteed recruitment. In addition, abalone fishers could also play a role in the monitoring of these beds.

The implementation of alternative livelihoods requires social, technical and institutional feasibility studies (Pomeroy *et al.* 2006). Livelihoods that evolve in response to local skills and available resources are more likely to be sustainable (Pomeroy *et al.* 2006). Further, livelihoods are preferable if they require low levels of capitalization, are low risk and are at a level that can be managed by the people (Pomeroy *et al.* 2006). Livelihoods need to be sustainable even after external organizations phase out (Pomeroy *et al.* 2006). Further, the sustainability of a livelihood option “*will depend on the availability of supporting infrastructure and the enabling environment, including credit, inputs, markets and technical assistance*” (Pomeroy *et al.* 2006). Alternatives thus need to be suited to the local context and must be in line with the skills and capabilities of the fishers. If not, these skills need to be developed and supporting structures must be put in place.

Lastly, one of the goals of the White Paper on Sustainable Coastal Development is to “*alleviate coastal poverty through proactive coastal development initiatives that generate sustainable livelihood options*”. Specific objectives to fulfil this goal are the proactive identification and development of opportunities that seek to eliminate coastal poverty and that coastal planning and management efforts shall promote meaningful and sustainable livelihood options.

#### **6.5.1 Local context**

The procurement of rights to harvest abalone has been a huge opportunity to fishers, enabling them to enhance their socio-economic status in a relatively short time.

However, many have specialised in the abalone fishery and the closure of the fishery has left them with few alternative job opportunities. In addition, rights holders have little formal education. Lastly, they are receiving little support from government with regards to alternative livelihoods. These factors are all driving forces of poverty and are constraints that need to be addressed. This can in turn also have a negative impact on the status of the abalone and west coast rock lobster resources, because hungry people will always choose to survive in the short run, as opposed to protecting a resource that they do not benefit from (FAO 2002). Unless rights holders and the Kleinmond community in general are involved in the recovery of the resource and stand to benefit, they will have no incentive to protect the resource.

The abalone fishery plays an important role in terms of job provision in Kleinmond. Thus any alternative livelihood opportunities need to be aimed at rights holders, their crew, and those who are fishing illegally. If the overall aim is to reduce the pressure on marine resources, then opportunities need to be available to all who utilise marine resources, because targeting only rights holders will not be sufficient to protect the abalone resource.

However, the fishing community in Kleinmond is generally sceptical and hesitant to become involved in alternative livelihood options, especially outside of fishing. Research identified that numerous factions operate within the community and could potentially hamper the success of alternative livelihood initiatives, and thus their agendas need to be identified and discussion between factions facilitated. It is clear that in Kleinmond, similar economic and development initiatives are running in parallel with very little collaboration between proponents. For instance, there are two similar development proposals for the Kleinmond Harbour being designed by different proponents, and being supported by different factions within the community. As a result, different community factions are aligning themselves with a particular “side” of similar projects, resulting in further conflict and tensions. As a result, projects are delayed and there is uncertainty surrounding who will benefit from new economic opportunities.

Key factors that may constrain the success of alternatives include poorly understood power dynamics and social tensions, even amongst rights holders. Past initiatives in

Kleinmond have failed due to mistrust between stakeholders, a lack of commitment from MCM and the lack of long term funding (Hauck and Hector 2003). It is thus vital to develop a legitimate local level structure in Kleinmond, which will provide a forum for rights holders and government to interact (EEU 2008).

However, a forum of this kind may be difficult to establish due to the contentious rights allocation process and factions present in the Kleinmond community. The first step would be to identify the various factions and to get them to talk to one another. Only then should government be involved. If tensions and conflicts within the community are not addressed, it could potentially undermine any progress between rights holders and government.

#### **6.5.2 Responsibility for alternative livelihood provision**

Abalone rights holders operate within a broader economic area, yet tend not to be the focus or beneficiaries of development or economic initiatives. This is because many initiatives are aimed at the “poorest of the poor” and because fishers “already have a job”. Thus, these projects are not suitable alternative to abalone harvesting, primarily because they cannot provide a similar income and thus standard of living.

There are clearly very different perceptions with regards to who is responsible for the provision of alternative livelihoods. MCMs Sustainable Coastal Livelihoods (SCL) sub-directorate is responsible for the identification of alternative livelihoods. However, they were not consulted until after the decision to close the fishery was made and they have limited resources in terms of supporting fishers to get involved in alternative livelihoods. It seems that the SCL sub-directorate has very low status and few available resources.

With regards to implementation, MCM is required to assist the community in developing a funding proposal and provide technical skills relating to the use of a marine and coastal resource if a proposal obtained funding (EEU 2008). However, it is unclear who will take responsibility for the generation of alternative livelihood opportunities for fishers as there is currently disagreement regarding whose responsibility it is. MCM officials say alternative livelihoods are not within their



mandate. Despite the argument that decreasing people's reliance on marine resources will in turn decrease pressure and facilitate preservation of marine resources. Thus, in order to reduce fishing effort and conserve marine resources, alternative livelihoods must be developed for fishers (Cheung and Sumaila 2007). Sowman and Cardoso (2008) state that it is government's responsibility to explore alternative employment opportunities, and rights holders agree. As early as 1999, Hauck and Sweijd predicted that there would be severe economic repercussions should the abalone resource collapse, resulting in a need to seek alternative forms of income. Not only would rights holders be affected, but also those who indirectly depend on the fishery for their livelihood (Hauck and Sweijd 1999).

Government departments that need to be involved in the development of alternative livelihood options for fishers will need to be determined on a project-by-project basis, since they may require different expertise. In this case, DEAT: MCM needs to play a leading role in the development of alternative livelihoods for the fishers in Kleinmond. Other government departments that could play an important role include: SRPP, Labour, Health, Social Services, Tourism, Agriculture, Economic Affairs and any other government created institutions that deal with economic development.

In terms of government policy, economic development is largely devolved to Provincial and Local government. Provinces have Provincial Growth and Development Strategies, whilst Local Governments have Integrated Development Plans (IDPs). IDPs promote actual projects and SRPP should link to Provincial and Local Government to fund and manage specific livelihood initiatives and projects.

Despite the existing policy framework, MCM has failed to effectively partner with other government agencies. Similarly, van Sittert et al. (2006) state that an important practical step to improve fisheries management is better cooperation amongst government sectors and devolution of authority where possible. It is vital that MCM consults and works closely particularly with local government, as well as fishers, as this is essential for successful co-management and implementation of sustainable livelihood initiatives.

However, getting different role-players in government to “sit around the table” generally does not happen. The Intergovernmental Relations Framework Act 13 Of 2005 governs the way different spheres of government should work together and integrate their actions. Yet even though certain institutional arrangements exist by law, they do not get implemented at a managerial level. Most government departments have very little knowledge regarding what goes on outside of their department. There is a lack of coordination and a lack of understanding regarding who is responsible for which actions.

What is necessary is for the various department involved to have a common understanding of the end goal, as well as to know what each department’s specific role is in reaching that goal. The implementation and effective functioning of institutional structures should be part of managers’ performance assessments – by making it an important part of their job to communicate effectively with other government structures, it can go a long way in ensuring that these structures work effectively. Furthermore, the public service is not neutral and political friction between opposing provincial and local spheres affects their ability to work together.

In summary, this chapter has highlighted most importantly that the decision to close the abalone fishery was top down, non-consultative and was done with very little understanding of the local and cultural context. Further, there is little understanding of the assets available to and constraints faced by rights holders in terms of getting involved in alternative income earning opportunities. The decision to close the fishery has little or no buy-in from rights holders, or the community in general, and the animosity that has resulted will further hamper any collaborative initiatives in the future.

Lastly, although much emphasis has been placed on the need to find alternatives to abalone fishing in this thesis, the fact remains that government needs to explore and identify innovative management measures and development interventions to address the livelihood needs of fishers that have a tradition of fishing.

## 7. Conclusion and Recommendations

This dissertation provided an overview of the decision to close the abalone fishery and the impacts of the closure on the abalone rights holders in the Kleinmond community, South Africa. The research set out to identify the range of stakeholders that have been affected by the abalone ban, the role of marine resources in the livelihood strategies of fishers and the extent to which the ban has impacted on the livelihoods of fishers in Kleinmond. The dissertation then went on to document and discuss the decision-making process that led to the closure of the fishery. And finally, the research identified opportunities and constraints associated with alternative livelihood opportunities.

The decision-making process that culminated in the closure of the abalone fishery was not consultative or transparent. In light of the rhetoric about co-management and the laws and policies in support of this approach, the decision making process is considered to be flawed and inadequate. The implications of the flawed decision process include an increase in mistrust and animosity toward MCM. Fishers feel sidelined with regards to their livelihoods and many may continue to harvest illegally due to the lack of legitimacy of the decision-process. The decision also indicates the lack of understanding on the behalf of MCM of the drivers of the illegal trade. If MCM does not fully understand poaching, they can never hope to manage the fishery effectively.

The management of the abalone fishery has not been participative or collaborative, and decisions that have been made in relation to resource management have been top down and science based. This despite both international and local conventions, laws and policies advocating a participative, decentralised and holistic approach to resource management and decision-making. Further, proposed alternatives to abalone harvesting seemed to be reactive and were not feasible given the local context and assets of rights holders.

There has been limited interaction between the various role-players and there needs to be a mechanism to share information in order to develop an agreed strategy. The way in which the closure of the abalone fishery was handled was highly problematic from

the perspective of the fishers. There was no phased-in approach of alternatives; no active engagement with stakeholders concerning their current and future role in the fishery; and decisions made lacked any form of consultation. Instead, decisions and the implementation of initiatives should be participative, collaborative and decentralised. It is important that fishers themselves identify complimentary livelihoods.

In order to sustainably manage marine resources, particularly lucrative abalone, buy in from rights holders and the adjacent community is vital. However, rights holders have not played a meaningful role in resource management, nor were they consulted with regards to the intention to close the fishery. This has resulted in animosity and mistrust toward MCM. This, in addition to the tension and conflict already present in the community, will impact on the success of future initiatives. MCM needs to build trust with the Kleinmond community by involving them in plans to rebuild the resource. A co-operative management structure will need to be developed so that fishers can participate effectively in management and decision-making. In addition, a socio-economic feasibility study should be conducted in order to better understand the conflicts within the community and the dependence of the community on the resource. This study should identify the different stakeholder groups; conflicts; and vested interests. It will also be necessary to form an institutional structure that will bring together the various stakeholder groups. Factions within the community that work against each other will undermine alternative livelihood initiatives, especially if it is perceived that one group is the recipient of all the benefits. It is therefore imperative that mechanisms to address this are put in place, with the aim of bringing conflicting stakeholder groups together. It is vital to understand this so that initiatives can be sustainable, and that benefits can be distributed equally.

Socio-economic problems, such as poverty and diversification of livelihoods needs to be better understood and actively addressed by MCM (EEU 2008). In order for MCM to manage marine resource sustainably, they need to adopt an integrated and holistic approach to resource management. This entails the inclusion of social and economic information in management and decision-making processes. Social and economic scientists need to be employed in fisheries authorities, so that these issues are properly identified and taken into account.

Further, it is necessary for fisheries managers and scientists to understand the cultural context of fishing. Many fishers have a strong cultural identity that is linked to fishing and marine-related activities (EEU 2008). This makes it particularly difficult for them to get involved in alternatives outside of fishing. Many do not have the skills, finances or confidence to leave the fishing industry and to pursue an alternative occupation. Therefore, supplementary livelihoods, in addition to fishing should be pursued – in this way, fishers retain their link to the sea, but fishing pressure is reduced.

Livelihood opportunities need to be sensitive to the socio-economic context of fishing activities and it needs to be recognised that there are different scales of economic benefit and dependence associated with different fisheries. Abalone, for example, is very lucrative in comparison to WCRL or linefish. Therefore, initiatives that are aimed at the “poorest of the poor” are not applicable to fishers who harvest abalone; and interventions need to be contextualised. Alternatives that are proposed need to be relevant and suitable to the local context and need to provide a sufficient income to meet the needs of the fishers. Livelihood opportunities need to be tailored to the skills and assets available to fishers, as these ventures are more likely to receive buy in and thus be successful. In addition, however, long term skills training and support is required to encourage fishers to diversify their livelihoods.

In order to protect marine resources, effective policing will need to be put in place with the cooperation of the community. The “sense of ownership” that was the goal of the long-term rights has not been realised and as a result illegal resource harvesting is still a problem in Kleinmond. Fishers are desperate to be involved in the protection of the resources, but feel that MCM is not responding to their concerns. If fishers do not have “ownership” over the resource in their area, they will have no incentive to protect it. This could potentially have an adverse impact on the remaining resource.

An important factor that should be considered before closing a commercial fishery is the availability of alternative sources of income in the local community for fishers. For many, their only source of income is a quota for harvesting a particular species, and if it is taken away they have no other source of income. It is also important to have a good understanding of the factors that led to the success or failure of similar

interventions. This can assist in developing projects or programmes that are more resilient.

There needs to be a proactive approach to the identification and implementation of alternative livelihoods (EEU 2008). This will require an in depth understanding of socio-economic issues facing coastal communities. Thus, suitable alternatives can be put in place before resources are in crisis. Also, institutional arrangements need to be clarified with respect to who should be involved in realising alternative livelihoods for fishing communities. Once this is made clear and the various departments are aware of their responsibilities, initiatives are more likely to be successful and sustainable. Fishers find it difficult to look at opportunities beyond marine resources and therefore initiatives need to be related to fishing and take into account the skills that are available. Fishers do believe that MCM has a responsibility and are consequently looking to MCM for guidance. Fishers believe that government, particularly MCM, has a role to play in identifying and supporting economic opportunities for fishers. Further, it is critical that government maintains their involvement to ensure that the initiative is sustainable. In addition to MCM, other government departments also need to be involved in the development of alternative livelihood options for fishers and these will need to be determined on a project-by-project basis. A strategy for collaboration within and between departments should be developed.

The closure of the abalone fishery has highlighted a number of issues that need to be addressed in the future management of marine resources in South Africa. Resource users need to be involved in decisions that affect their lives, particularly in the day-to-day management of marine resources. Any decisions that are made need to be open and transparent and must be made in consultation with resource users. Further, co-management arrangements need to be implemented so that fishers play a meaningful role in management and develop a sense of ownership over marine resources. Fisheries authorities need to be aware of the local context and the cultural and historical role of fishing; and most importantly they need to understand that fishers want to fish! In addition, socio-economic information must inform all management and decision-making processes in order that an integrated and holistic approach to fisheries management is adopted. Fisheries authorities must recognise that marine

fisheries are composed of both human and biological systems and these cannot be managed in isolation.

Finally, the biggest challenge facing the sustainable management of marine resources, particularly abalone, is the institutional failure and lack of coordination within and between government bodies. Whilst one cannot accept MCMs failure to manage the fishery sustainably as a motivation for 'pushing' fishers into alternative livelihoods, there are a number of opportunities that can be explored if small scale fishing is addressed creatively both in terms of the resource and market opportunities. Small scale fishers as a group require a certain level of developmental support even though they possess traditional knowledge and skills. Government needs to find creative technical solutions to the issues facing small scale fisheries. This will require innovative thinking, collaboration with stakeholders and political will on the part of MCM and government.

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## **9. Appendices**

### **9.1**

#### **1. Resources/Assets and Resource Users**

- Who are the resource users/ fishers in the case study area?
- How many people are involved in the fishery (formal & informal)?
- What marine resources are people harvesting (what species) and why (to sell or to eat)?
- How/ what methods are being used?
- What is the current state of the resource(s)?
- What are the assets (social, economic, ecological, physical) in this case?

#### **2. Livelihood Strategies**

- What are the past/ current livelihood strategies employed by coastal resource users?
- What incomes are being derived from these activities?
- What other (non marine) activities are they involved in to support their livelihoods?
- Are there people in this community who were previously reliant on marine resources, but no longer have access? What livelihood/s are they depending on now?

#### **3. Potential Livelihood Options**

- What are the potential livelihood options that could be developed and implemented?
- Identify opportunities and constraints associated with pursuing these.
- What are peoples' willingness to pursue alternative livelihoods?
- What are the factors that have led to success or failure of other similar livelihood/ poverty alleviation interventions?

#### **4. Mechanisms to Explore Feasibility**

- What are the steps that need to be taken to determine the feasibility of implementing alternative livelihoods and community support/ interest?
- Who should be involved?
- Clarify the institutional arrangements that are required to facilitate development and implementation of feasible alternatives.
- What Institutional arrangements exist to pursue sustainable alternative livelihoods? Where are the conflicts/ overlap?
- How do we strengthen partnerships across institutions?

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## 9. 2 Questionnaire Survey

### The Investigation of Present and Future Livelihood Strategies

#### Employed by Marine Resource Users: Kleinmond

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Date of Interview .....

Interviewee's Name .....

Place of Interview (community name) .....

### 1. BACKGROUND INFORMATION ON INTERVIEWEE

1.1 What is the interviewee's gender? / **Wat is die geslag van die respondent?**

[1] Vroulik [2] Manlik

1.2 Age of interviewee/ **Ouderdom van respondent?** .....

1.3 Interviewees educational background [1] Nooit skool toe gegaan nie

[2] Laer Skool: Std.....

[3] Sekondere School: Std.....

[4] Tersiere: .....

1.4 Are you a member of any organisations? Particularly, fisheries related/ **Is u 'n lid(maat) van enige vissers-organisasies?**

.....  
.....  
.....  
.....

### 2. BACKGROUND INFORMATION ON MARINE RESOURCE

#### HARVESTING (Pre-closure)

2.1 Do you harvest marine resources (circle)? / **Vang u enige vissoorte? bv. kreef, perlemoen**

[1] JA

[2] NEE



2.1.1 If NO, did you harvest marine resources in the past? / **Indien nee, het u tevore enige vissoorte gevang?**

.....  
.....

If Yes (indicate species/ **Indien JA, wat het u gevang?**)

.....  
.....

2.2.2 If YES to Question 2.2.1, why do you no longer harvest marine resources (and go to Section 3)/ **Indien JA vir vraag 2.2.1, hoekom vang u nie meer hierdie vissoorte/ visbronne nie?**

.....  
.....  
.....  
.....

2.2 What species are you harvesting? (Including prior to the abalone fisheries closure)/ **Watter vissoorte vang u? Insluitent daai vissoorte wat u ge-oes/ gevang het voor die sluiting van die perlemoen-visserij.**

.....  
.....  
.....

2.3 Do you have permits or quotas for harvesting? Which species? (*Indicate the fish species next to the permit to indicate which permits are used for which species. Also indicate which species are being harvested with no permit*)/ **Het u 'n permit of visreg vir visvang/ of om visbronne te vang? Watter spesies?**

[1]Commercial/**Kommersieel**

.....

[2] Recreational/ **Sportpermit**

.....

[3]Subsistence/**Bestaanspermit**

.....

[4] Interim Relief Permit

.....

[5] No permit/**Geen permit**

.....

2.4 Which months out of the year do you harvest? / **Watter maande van die jaar vang jy vis?**

.....

.....

2.5 Which months do you harvest the most? / **Watter maande van die jaar vang jy die meeste?**

.....

.....

2.6 Do you have a crew that work FOR you? Ie: depend on you for their income/ **Het jy 'n bemanning (bakkiemaat) wat VIR u werk? (Wat afhangend van jou is vir hulle inkomste)**

[1] JA

[2] NEE

2.6.1 If YES, how many crew members do you have? / **Indien JA, hoeveel mense is daar in jou bemanning?** .....

2.7 When you harvest, what fishing gear/ techniques do you use? (give species and indicate gear – boat, line, nets, etc – for each species)/ **Wanneer u visvang watter soort toerusting of tegnieke gebruik u? (Noem die spesies en dui ook aan die toerusting ens, vir elke spesie)**

.....

.....

.....

2.8 What are your catches **PRIMARILY** used for (circle)? / **Wat word hoofsaaklik met die vangste gedoen (sirkel)?**

[1] Share it with neighbours/ **Deel dit met die bure**

[2] To sell/ **verkoop die vis**

[3] To eat/ **eet die vis**

[4] Eat some of the catch but sell most of it/ **eet van die vis en verkoop die oortollige vis**

[6] Other uses (Please specify)/ **Ander gebruike (Dui asseblief aan)**

.....  
.....

2.9 Which is the most abundant species in your area? / **Watter spesie is die mees volop in jou area?** .....

2.10 If your catch is sold, to whom do you sell it to (circle)? **Indien u die vangste verkoop, aan wie verkoop u?**

[1] Informal buyers in community (ad hoc people living in community, restaurant etc)/ **Informele kopers in die gemeenskap (enige iemand in die gemeenskap sowel as restaurant eienaars ens)**

[2] Informal buyers outside community (tourists, ad hoc people coming into community)/ **Informele kopers buite die gemeenskap (Toeriste, of enige besoekers aan die gemeenskap)**

[3] Organised buyers in community (organised agreements with people living in community)/ **Formele kopers in die gemeenskap (mense met wie u 'n ooreenkoms het)**

[4] Organised buyers outside community (organised agreements with buyers outside community)/ **Formele kopers buite die gemeenskap (mense met wie u 'n ooreenkoms het van buite die gemeenskap)**

[5] Other/ **Ander**

.....

2.11 How much money do you receive from your catch (indicate value, amount and species)? (for example, R25/per bundle/harder OR R150/kg/abalone etc)/ **Hoeveel geld kry jy vir jou vangste/ dui asseblief die waarde aan, hoeveelheid en spesie:**

[1] Fresh fish/ **vars vis**

.....  
.....

[2] Dried fish/ **droe vis**

.....  
.....

[3] Rock lobster whole/ **kreef heel**

.....  
.....

[4] Rock lobster tails/ **kreef sterte**

.....  
.....

[5] Abalone/ **perlemoen**

.....  
.....

[6]Mussels/**mossels**.....

.....

[7]Other/**Ander**.....

.....

### 3. HISTORICAL CONTEXT

3.1 How many years have you been involved in fishing activities? / **Hoe baie jare vang u al vis?**

.....

3.2 Was your father a fisher? / **Was jou pa 'n visserman?**

[1] JA

[2] NEE

3.3 Was your grandfather a fisher? / **Was jou oupa 'n visserman?**

[1] JA [2] NEE

3.4 Were fishing activities an important part of your childhood? / **Was visvanverwante aktiwiteite 'n belangrike aspek/ deel van u opbrengs?**

[1] JAA [2] NEE

3.5 How long have you lived in the area? / **Hoe lank / baie jare lewe u al in die area? .....**

#### **4. HOUSEHOLD CHARACTERISTICS AND INCOME**

4.1 How many people live in the household? / **Hoeveel mense bly in die huisgesin? .....**

4.2 How many adults, older than 18, live in the household? / **Hoeveel volwassenes, ouer as 18, bly in die huis .....**

4.3 How many people, younger than 16 live in the household? / **Hoeveel mense, jonger as 16, bly in die huis? .....**

4.4 How many household members are fishers? / **Hoeveel mense tuis/in die huisgesin is vissers? .....**

4.5 Is the household head:

- [1] Fisher/ **visser**
- [2] Employed/ **het 'n werk**
- [3] Pensioner/ **pensionare**
- [4] Self Employed/ **werk vir eie gewin**
- [5] Unemployed/ **werkloos**
- [6] Other/ **ander .....**

4.6 What is your household monthly income (pensions, grants, other sources of income incl?)/**Wat is u maandlikse huishoud inkomste? (Sluit pensioen, toelaag, en ander bronne van inkomste in)**

- [1] Minder as R500
- [2] R501-R1000
- [3] R1001-R1500
- [4] R1501-R2000
- [5] R2000-R3000
- [6] Meer as R3000

4.7 To what single activity does the majority of your income go (circle one)? **Op wat spandeer u die meeste van u inkomste?**

- [1] Buy food/ **kos koop**
- [2] Purchase equipment and supplies for fishing activities/ **Koop van toerusting en voorraad vir visvang-aktiwiteite**
- [3] Clothing/ **Klere**
- [4] School fees/ **Skoolgeld**
- [5] Debt/ **Skuld**
- [6] Other, please specify/ **Ander, dui asseblief aan**

.....

## **5. LIVELIHOOD STRATEGIES**

5.1. What activities contributed towards your monthly income BEFORE the abalone ban (tick all)? / **Watter aktiwiteite het bygedra tot u maandlikse inkomste, VOOR die sluiting van die perlemoen-vissery?**

5.2. Did any of these bring in more than half of your income (highlight with \*)/ **Het enige van hierdie aktiwiteite meer as die helfte van u inkomste ingebring?**

5.3. Rank level of importance in terms of bringing in income (1 being highest)/ **Dui aan in terme van mees belangrik wat die meeste inkomste inbring (1 is die hoogste getal)**

- [1] Harvesting fish/marine resources/ **visvang**

- [2] Employment through commercial fishing (crew)/ **kommersiele visvangaktiwiteite**
- [3] Processing/marketing of fish/marine resources/ **Verwerking en Bermarking van vis/visbronne**)
- [4] Sale of crops (fruit, vegetables)/ **Verkoop van oeste (vrugte, groente)**
- [5] Sale of livestock (poultry etc)/ **Verkoop van vee (hoenders etc)**
- [6] Industrial Work (e.g. working in factories etc)/ **Industriële werk (e.g. werk in fabrieke ens)**
- [7] Labour (construction etc)/ **bouwerk**
- [8] Tourism/ **Toersime**
- [9] Farm Work/ **Plaaswerk/ Seisoenale werk**
- [10] Pension/ **Pensioen**
- [11] Grants (disability, child)/ **Toelaag (disability, child)**
- [12] Others (please specify)/ **Ander (dui asseblief)**
- .....

5.4 In your household, what activity was the MOST IMPORTANT in terms of monthly income BEFORE the abalone ban (circle one)?/ **In u huishouding watter aktiwitiete sou u as die MEES BELANGRIK beskou in terme van u maandlikse inkomste - VOOR die perlemoen-sluiting?**

- [1] Harvesting fish/marine resources/ **visvang**
- [2] Employment through commercial fishing (crew)/ **kommersiele visvangaktiwiteite**
- [3] Processing/marketing of fish/marine resources/ **Verwerking en Bermarking van vis/visbronne**)
- [4] Sale of crops (fruit, vegetables)/ **Verkoop van oeste (vrugte, groente)**
- [5] Sale of livestock (poultry etc)/ **Verkoop van vee (hoenders etc)**
- [6] Industrial Work (e.g. working in factories etc)/ **Industriële werk (e.g. werk in fabrieke ens)**
- [7] Labour (construction etc)/ **bouwerk**
- [8] Tourism/ **Toersime**
- [9] Farm Work/ **Plaaswerk/ Seisoenale werk**
- [10] Pension/ **Pensioen**
- [11] Grants (disability, child)/ **Toelaag (disability, child)**

[12] Others (please specify)/ **Ander (dui asseblief)**

.....

5.5 What activities are you CURRENTLY pursuing in order to derive an income?

5.5.1 What activities contribute towards your monthly income (tick)? / **Watter aktiwiteite maak OP DIE OOMBLIK 'n bydra tot u maandlikse inkomste?**

5.5.2 Do any of these bring in more than half of your income (highlight with \*)/ **Bring enige van hierdie aktiwiteite meer as die helfte van u inkomste in?**

5.5.3 Rank level of importance in terms of bringing in income (1 being highest)/ **Dui aan in terme van mees belangrik wat bring die meeste inkomste in (1 wat die hoogste getal is)**

[1] Harvesting fish/marine resources/ **visvang**

[2] Employment through commercial fishing (crew)/ **kommersiele visvangaktiwiteite**

[3] Processing/marketing of fish/marine resources/ **Verwerking en Bermarking van vis/visbronne)**

[4] Sale of crops (fruit, vegetables)/ **Verkoop van oeste (vrugte, groente)**

[5] Sale of livestock (poultry etc)/ **Verkoop van vee (hoenders etc)**

[6] Industrial Work (e.g. working in factories etc)/ **Industriële werk (e.g. werk in fabrieke ens)**

[7] Labour (construction etc)/ **bouwerk**

[8] Tourism/ **Toersime**

[9] Farm Work/ **Plaaswerk/ Seisoenale werk**

[10] Pension/ **Pensioen**

[11] Grants (disability, child)/ **Toelaag (disability, child)**

[12] Others (please specify)/ **Ander (dui asseblief)**

.....



## 6. BACKGROUND INFORMATION ON THE ABALONE FISHERY

6.1 Did you have an abalone allocation? / **Het u 'n perlemoen-toewysing?**

[1] JA                      [2] NEE

6.1.1 If YES, how many kg's? / **Indien JA, hoe baie kg?** .....

6.2 How long did it take you (days) to harvest your allocation? / **Hoe lank neem dit jou om jou toewysing te oes?** .....

6.3 What did you do for the rest of the year to obtain extra income? / **Wat doen jy/ waarmee hou jy jouself besig vir die res van die jaar om 'n ekstra inkomste te maak?** .....

6.4 Do you think the abalone resource is threatened? / **Dink u die perlemoen-bron is bedryg?**

.....  
.....  
.....  
.....

## 7. ISSUES SURROUNDING THE CLOSURE OF THE ABALONE FISHERY

7.1 What percentage of permit holders do you think are involved in informal fishing? / **Watse persentasie van permit-houers dink u is betrokke/ betrek met informele visvang?** .....

7.2 Do you think informal fishing will continue now that the fishery has been closed? / **Dink u dat informele visvang sal voortsit/ aanhou nou dat die perlemoen-vissery gesluit is?**

[1] JA                      [2] NEE

7.2.1 If YES, do you think it will be more or less than before? / **Indien JA, dink u dit sal minder or meer/ beter of erger wees as tevore?**

.....

.....

.....

.....

7.3 How do you think the ban should have been put in place? What would you have liked to see happen/ how would you have liked to have been approached? / **Hoe dink u moes die sluiting van die perlemoen-visserij plaas gevind het? Hoe sou u benader/ingelig wou gewees het?**

.....

.....

.....

.....

## **8. ALTERNATIVE PRESENT AND FUTURE LIVELIHOOD STRATEGIES**

8.1 Do you believe that fishing/harvesting resources is a secure form of income? / **Dink u dat visvang en visvangverwante aktiwiteite 'n vaste vorm van inkomste is?**

[1] JA [2] NEE

Why or Why not? **Hoekom/ Hoekom nie?**

.....

.....

.....

8.2 What do you like about fishing compared to other jobs that you could do? / **Wat is dit van visvang waarvan u hou in vergelyking met ander werk (wat u kon doen)?**

.....

.....

.....

8.3 If you could make the same income in an occupation other than fishing, would you change your job? / **Indien u dieselfe inkomste kan maak deur 'n ander werk, buite visvang, dink u dat u, u werksberoep sal verander?**

[1] JA            [2] NEE

Why or Why not? **Hoekom/ Hoekom nie?**

.....  
.....  
.....

8.3.1 If YES, what options would you consider? / **Indien JA, watter ander opsies sal u oorweeg?**

.....  
.....  
.....

8.4 Are any of these economic opportunities available in your community? / **Is enige van hierdie ekonomiese geleenthede beskikbaar in u gemeenskap?**

[1] JA            [2] NEE

If YES, which ones? / **Indien Ja, watter enes?**

.....  
.....  
.....  
.....  
.....

8.5 Do you know the names of any organisations inside or outside your community who are involved in identifying or supporting economic opportunities for fishers?/  
**Ken u die name van enige organisasies binne of buite die gemeenskap wat betrokke is in terme van identifisering van ekonomiese geleenthede vir vissers?**

[1] JA (please list names)

.....  
.....  
.....

[2] NEE

8.6 Do you think government has a role to play in identifying and supporting economic opportunities for fishers? / **Dink u dat die Regering 'n rol moet speel in terme van identifiseering en ondersteuning van ekonomiese geleenthede vir vissers?**

[1] JA (if yes, indicate how they should be involved)/ **Indien JA, kan u aandui hoe hulle betrokke moet wees**

.....

.....

.....

.....

.....

.....

[2] NEE

8.7 What do you consider your greatest ASSET that would help you to become involved in another economic opportunity (skills, social or economic capital etc)/ **Wat sou u sê is u grootse eienskap wat u sal help om betrokke te raak met ander ekonomiese aktiwiteite?** (skills/vaardighede, social/ sosiale eienskappe or economic capital / finansies etc)

.....

.....

.....

8.8 What do you consider the biggest CHALLENGE or problem for you to become involved in another economic opportunity? / **Wat sou u beskou as die grootse struikelblok of probleem wat u sal verhoed om betrokke te raak in 'n ander ekonomiese aktiwiteit?**

.....

.....

.....

8.9 How would you address this challenge? / **Hoe sal u hierdie struikelblok/ke hanteer?**

.....

.....

.....

### 9.3 List of persons interviewed.

#### List of Fishers and other Key Informants Interviewed

Informant	Affiliation	Date
<b>APFs</b>		
Edwin	Combined Abalone Processors	05 June 2008
Francois	Walker Bay Cannery Pty Ltd	05 June 2008
Mr Groenewald	SPP Canning	05 June 2008
<b>MCM</b>		
Alan Boyd	ICM	28 May 2008
Genevieve Maharaj	Research	29 May 2008
Angus MacKenzie	Research	29 May 2008
Gert van Eeden	Special Investigations (MCS)	19 June 2008
Ntombi Makwabe	ICM	28 May 2008
Pedro Goosen	MCS	24 June 2008
Gloria Sikiti	Resource Management	24 June 2008
Robb Tarr	Research	14 July 2008
N Bacela	Resource Management	14 July 2008
Johan Augustyn	Research	08 July 2008
<b>UCT Scientists</b>		
Eva Plagányi	UCT	20 June 2008
Doug Butterworth	UCT	08 July 2008
Maria Hauck	UCT	11 July 2008

**Boat based whale  
watching**

Owner/s	Southern Right Charters	05 June 2008
Phillipus	Hermanus Whale Cruises	05 June 2008

**SRPP**

Desmond Stevens	SRPP	14 April 2008
Kadar Mayer	SRPP	14 April 2008

**Business People**

Garth Fredericks	Accountant	23 April 2008
Mark Miles	Global Ocean	14 April 2008
Patrick Kilroe	SAMD	19 May 2008
Laura and Linda	Mthimkhulu	18 April 2008; 23 April 2008

**Overberg Municipality**

Solomzi Madikane	Director; Economic Development and Tourism	05 June 2006
Schalk van der Merwe	Planning Overstrand Municipality	18 April 2008

**Workshops**

Initial NEAF Project workshop	13 February 2008
Data Analysis Workshop	20 May 2008

**Focus Groups**

WCRL	17 April 2008
Abalone	18 April 2008

**Fisher Meetings**

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Initial Meeting with TURF Rep.	13 March 2008
Solomon van Wyk	05 June 2008
Nolan Swartz	02 June 2008
Albert Leibrandt	25 April 2008
Clive Leibrandt	25 April 2008
Andre Leibrandt	25 April 2008
Kelvin Leibrandt	25 April 2008
Susan Swanepoel	17 April 2008

**Questionnaire**

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Charles Swartz	22 April 2008; 03 June 2008; 18 April 2008
Jaco Barry	24 April 2008
Constant McLachlan	23 April 2008; 03 June 2008
Reginald Samuels	23 April 2008; 03 June 2008
Emmanuel Jack	22 April 2008; 03
Haydricks	June 2008
Emmanuel John	22 April 2008
Haydricks	
Sam Haydricks	23 April 2008
Danwell Cronje	25 April 2008
Nico Smal	04 June 2008
Clive Leibrandt	02 June 2008
Percival Allistair	22 April 2008
Pheiffer	

**Local FCO**

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Pieter Benade	25 April 2008
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**SeaWatch**

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Mike Tannet

24 April 2008

**Informal Discussions**

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Pietie Fredericks

17 April 2008

Nolan Swartz

17 April 2008

Reggie Samuels

17 April 2008

University of Cape Town